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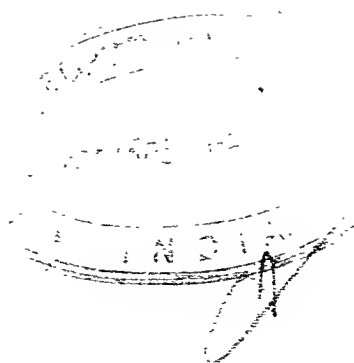
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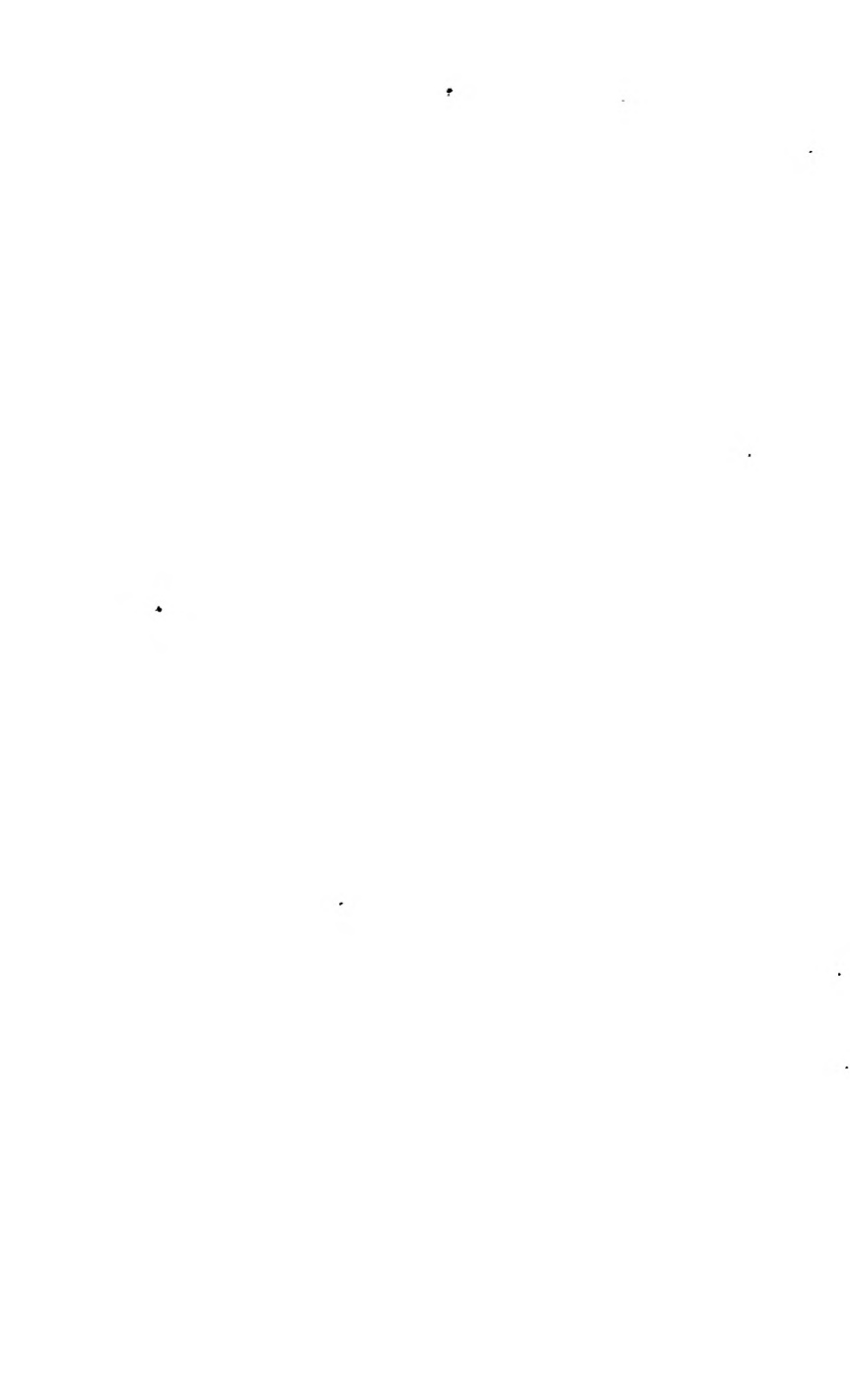
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JOURNAL

OF THE

CEYLON BRANCH

OF THE

ROYAL ASIATIC SOCIETY,

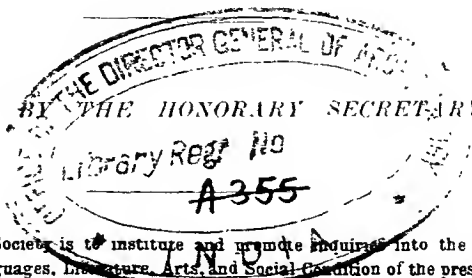
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VOLUME XIX.

No. 57.

EDITED BY THE HONORARY SECRETARY



The design of the Society is to institute and promote inquiries into the History, Religions, Languages, Literature, Arts, and Social Condition of the present and former Inhabitants of the Island, with its Geology and Mineralogy, its Climate and Meteorology, its Botany and Zoology.

891.05

C. R. A. S.

COLOMBO :

H. C. COTTLE, GOVERNMENT PRINTER, CEYLON

1907.

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JOURNAL

OF THE

ROYAL ASIATIC SOCIETY.

CEYLON BRANCH.

COUNCIL MEETING.

Colombo Museum, February 5. 1906.

Present :

The Hon. Mr. J. Ferguson, C.M.G., President, in the Chair.
Mr. P. Freüdenberg, Vice-President.

Mr. R. G. Anthonisz.	{	Mr. C. Driberg, B.A., F.H.A.S.
Dr. W. H. de Silva, F.R.C.S.	{	Mr. C. M. Fernando, M.A., LL.M.
Mr. J. Harward, M.A., and Mr. G. A. Joseph, Honorary Secretaries.		

Business.

1. Read and confirmed Minutes of Council Meeting held on November 14, 1905.

2. The following candidates were elected Members of the Society :—

(1) H. W. Codrington, B.A., C.C.S.:	{	J. Harward.
recommended by	{	G. A. Joseph.

(2) P. D. Warren, Surveyor-General :	{	J. Ferguson.
recommended by	{	R. H. Ferguson.

3. Read and passed the draft Annual Report for 1905.

4. Laid on the table a Paper entitled "Some Survivals in Kandyan Art," by Mr. A. K. Coomaraswamy, B.Sc.

Resolved,—That the Paper be referred to Messrs. J. P. Lewis and J. Harward for their opinions.

5. Laid on the table a Paper entitled "Uḍapola Sannasa, with translation and notes," by Mr. T. B. Pohath.

Resolved,—That the Paper be referred to Messrs. H. C. P. Bell and C. M. Fernando for their opinions.

6. Laid on the table a letter from the Honorary Secretary, Pettah Library, asking for a set of the Society's publications.

Resolved,—That a reply be sent that the Society's publications have not been supplied free to Libraries, and that the publications can be consulted by any Member of the Pettah Library at the Colombo Museum.

7. Laid on the table a letter from Messrs. A. M. and J. Ferguson pointing out the necessity of reprinting No. 31 of the Journal.

Resolved,—That the matter be left in the hands of the Secretaries and Treasurer.

8. Considered the nomination of Office-Bearers for 1906.

Under Rule 16 the Hon. Mr. S. C. Obeyesekere and Mr. H. White retire by seniority, and Mr. P. Rámanáthan and Dr. J. C. Willis by reason of least attendance. Two of these Members are eligible for re-election. Mr. H. F. Tomalin resigned his seat on the Council owing to transfer from Colombo.

Resolved,—That the Hon. Mr. S. C. Obeyesekere and Dr. J. C. Willis be re-elected; that Messrs. H. White and P. Rámanáthan be deemed to have retired; and that the vacancies in the Council be filled by the election of Messrs. P. Arunáchalam, A. K. Coomáraswámy, and Hon. Mr. H. L. Crawford. Resolved further,—That Dr. Willey, D.Sc., F.R.S., be nominated a Vice-President of the Society, and his place in the Council be filled by S. de Silva, Gate Mudaliyár, Chief Translator to Government.

9. Resolved,—That the Annual General Meeting be held in March: that the date be left in the hands of the Honorary Secretaries; that His Excellency the Governor be requested to preside at the Meeting; and that the business be the reading of the Annual Report, election of Office-Bearers, and the delivery of an Address by the President.

10. Resolved,—That Mr. J. A. Henderson be asked to audit the Society's accounts for 1905.

11. Resolved,—That the President's Paper entitled "The Beginning, Rise, and Progress of the Cultivation of the Coconut Palm in Ceylon (No. 1: from earliest times up to 1660 A.D. or about the end of the Portuguese Occupation of the Maritime Province)," be accepted, and read at the Annual General Meeting.

ANNUAL GENERAL MEETING.

Colombo Museum, March 16, 1906.

Present :

His Excellency Sir Henry A. Blake, G.C.M.G., Patron, in
the Chair.

The Hon. Mr. J. Ferguson, C.M.G., President.

Mr. R. G. Anthonisz.
Mr. T. P. Attygalle, J.P.
A. J. Chalmers, M.D., F.R.C.S.
Mr. Peter de Abrew.
Mr. F. J. de Mel, M.A., LL.B.
Mr. W. A. de Silva, J.P.
Dr. W. H. de Silva, F.R.C.S.
Mr. S. de Silva. Gate Mudaliyár.
Mr. C. M. Fernando, M.A., LL.M.
Mr. C. J. M. Gordon, M.A.
Mr. A. M. Gunasékera, Muda-
liyár.
Mr. I. Gunawardena, Mudaliyár.

Mr. J. C. Hall.
Dr. C. A. Hévavítarana.
Mr. D. B. Jayatilaka, B.A.
Sir W. W. Mitchell, Kt.,
C.M.G.
Hon. Mr. S. C. Obeyesekere.
Mr. E. W. Perera, Advocate.
V. R. Saravanamuttu, M.D.
Mr. P. D. Warren, F.R.G.S.
Mr. G. E. S. S. Weerakoon,
Mudaliyár.
A. Willey, M.A., D.Sc., F.R.S.

Mr. R. H. Ferguson, B.A., Honorary Treasurer.

Mr. J. Harward, M.A., and Mr G. A. Joseph,
Honorary Secretaries.

Visitors : Fourteen ladies and twenty-seven gentlemen.

Business.

1. Read and confirmed Minutes of last General Meeting held on December 13, 1905.

2. The Honorary Secretary announced the election of the following Members since the last General Meeting :—Mr. H. W. Codrington, B.A., C.C.S., and Mr. P. D. Warren, F.R.G.S.

3. Dr. A. WILLEY, F.R.S., Director of the Colombo Museum, exhibited certain specimens of birds peculiar to Ceylon, which were mounted in groups of pairs in artistic fashion. They comprised the Red-faced *Mal-kohá*, Ceylon Blackbird (*Merula Kin-nisi*), Spotted Thrush, Ceylon Magpie (*Cissa Ornata*). wrongly

called the Jay, Ceylonese Scimitar Babbler, and Ceylon Myna, which are most remarkable and interesting as regards their habits and environment.

He said the former President of the Society, Sir Everard im Thurn, had expressed a wish that objects of natural history should be brought to the notice of the Society on such occasions as the present. With the exception of the Nuwara Eliya Black-bird, all the birds shown belonged to what was known as the lower montane zone or lower forest region of Ceylon, to which they were restricted. The most remarkable species on the table was the Red-faced *Mal-kohá*, represented by a couple of birds in full plumage.

4. Mr. HARWARD read the—

ANNUAL REPORT FOR 1905.

The Council of the Ceylon Branch of the Royal Asiatic Society has the honour to submit the following Report for the year 1905:—

MEETINGS AND PAPERS.

Four General Meetings of this Society have been held during the year, at which the following papers were read and discussed:—

- (1) "Portuguese Inscriptions in Ceylon," by Mr. J. P. Lewis, M.A., C.C.S.
- (2) "Ríja Sigha I.," by Mr. W. F. Gunawardhana, Mudaliyár.
- (3) "Two Old Singhalese Swords," by Mr. C. M. Fernando, M.A., LL.M.
- (4) "Notes on the Variations of the Copper Massas of Six Singhalese Rulers," by Mr. John Still.
- (5) "Notes on a Dutch Medal," by Mr. F. H. de Vos.
- (6) "Notes on Paddy Cultivation Ceremonies in the Ratnapura District," by Mr. A. K. Coomáraswamy, B.Sc.
- (7) "The Photography of Colour as applied to obtaining correct Colour Records of Natural History Subjects," with lantern illustrations, by Mr. W. Saville-Kent, F.L.S., F.Z.S., &c.

MEMBERS.

During the past year twelve new Members were elected, viz., Dr. D. Rockwood, Sir J. Keane, Bart., Dr. C. A. Héwavitarana, M.B., Messrs. P. E. S. Dharmasekera, A. W. Wijesinha, H. Storey, R. S. Churchill, J. C. Hall, A. B. W. Jayasekera, D. S. B. Kuruppu-Jayawardena, Pandit D. M. S. Sri Wijaya Kavi Rája, and Mr. W. S. de Silva.

The following Members have resigned:—Mr. W. E. Byles, Rev. S. Langdon, Messrs. T. North Christie, A. van der Poorten, and A. E. Wackrill.

The Society has now on its roll 203 Members. Of these 27 are Life Members and 10 Honorary Members.

The Council desires to record its regret at the death of Mr. R. W. Ievers, M.A., C.M.G., C.C.S., who joined the Society in 1879. He contributed the following papers to the Society's Journal :—

- (1) " Customs and Ceremonies connected with Paddy Cultivation," Vol. VI., No. 21, 1880.
- (2) " Beligala," Vol. VIII., No. 29, 1884.
- (3) " The Custom of Polyandry in Ceylon," Vol. XVI., No. 50, 1899.

LIBRARY.

The additions to the Library, including parts of periodicals, numbered 303.

The Library is indebted for donations to the following :—*Revista da Commissão Archeologica da India Portuguesa*, Nova Goa ; the Government of India ; the Archaeological Survey of India ; the Geelong Field Naturalist's Club ; *Cuerpo de Ingenieros de Minas* ; Mr. L. Jones ; the Literary and Philosophical Society of Liverpool ; Mr. V. Kanakasabhai ; Professor C. Duraiselle ; Professor W. Geiger ; Mr. P. D. Khan ; the Hon. the Colonial Secretary, Ceylon ; the University of Colorado ; the Library of the India Office ; the Government of the United Provinces of Agra and Oudh ; the Director of Public Instruction, Ceylon ; the Secretary, Planters' Association, Ceylon ; Mr. A. Anavaratna ; the Archaeological Survey of Punjab and United Provinces ; Pandit N. B. Charya ; Postmaster-General, Ceylon ; the Archaeological Survey of Madras and Coorg ; the Siam Society ; the Archaeological Survey of Burma ; the Oberlin College Library, Ohio ; Pandit D. M. Silva ; Dr. D. G. Dalgado ; the Secretary to the Government of India (Home Department) ; Mr. R. G. Anthonisz ; Mr. A. M. Gupasékera, Mudaliyar.

For valuable exchanges received during the year the Society is indebted to the following :—

The Geological Survey of Canada ; *Commissie in Nederlandsch-Indie voor ondhaidkundigbuderzoek* of Java en Madoera ; the American Oriental Society ; Royal Asiatic Society of Great Britain and Ireland ; the Anthropological Society of Bombay ; K. K. Naturhistorischen Hopmuseums, Austria ; the Smithsonian Institute ; United States Geological Survey ; the Academy of Natural Sciences, Philadelphia ; *Deutschen Morgenlandischen Gesellschaft*, Leipzig ; *Bijdragen-tot-de Taal-Land en Volkenkunde van Nederlandsch-Indie*, The Hague ; *Tijdschrift voor Indische Taal-Land en Volkenkunde*, Batavia ; Straits Branch of the Royal Asiatic Society ; the Royal Society of Victoria ; the Geological Society of London ; *La Societe Imperiale des Naturalistes de Moscow*, Russia ; Iowa Geological Survey ; *Societe Zoologique de France* ; the Anthropological Institute of Great Britain and Ireland ; Páli Text Society of London ;

China Branch of the Royal Asiatic Society; Asiatic Society of Japan; Asiatic Society of Bengal; Bombay Branch of the Royal Asiatic Society; John Hopkins University, Baltimore, United States of America; Bureau of American Ethnology; the Royal Colonial Institute, London; the Royal Society of Victoria; Musée Guimet, Paris.

ACCOMMODATION.

The Council notes with pleasure that the plans for the Colombo Museum extension have been finally passed unanimously by the Museum Committee. It trusts that the additional buildings will soon be constructed so as to afford much-needed relief for the congested state of the Library and Museum.

JOURNALS.

One number of the Journal. Vol. XVIII., No. 55, was published during the year. It contains, in addition to the Proceedings of the Council and General Meetings, the following Papers:—

(1) "A Note on the Palæography of Ceylon," by Mr. C. M. Fernando, M.A., LL.M.

(2) "Correspondence between Rāja Siṅha II. and the Dutch," by Mr. Donald Ferguson.

(3) "Alakēswara: His Life and Times," by Mr. Edward W. Perera, Advocate.

(4) "François Caron and the French East India Company," by Mr. F. H. de Vos, Barrister-at-Law.

ARCHÆOLOGY.

Mr. H. C. P. Bell, Archaeological Commissioner, has kindly supplied the following summary of research carried out by the Archaeological Survey during 1905:—

Archæological Work, 1905.

With a vote temporarily much reduced, and with but half of the normal labour force available, the Archaeological Survey had, in 1905, to confine itself almost entirely to "harking back" to field work done during the past fifteen years.

Owing to the heavy rains of successive monsoons, the incursion of herds of cattle, and the prodigality of nature itself, most of the ruins in the extensive areas excavated at Anurādhapura between 1890 and 1903—and at Polonnaruwa since 1900—had become washed, silted, and hardly recognizable. The very outlines were in places obscured, whilst details of mouldings and sculpture had been greatly hidden by the insidious grasp of figs and other overwhelming roots. It was most desirable—indeed essential—to partially re-dig the majority of the ruins already exhumed, lest the labour of years should be rendered entirely nugatory.

Anurádhapura.

Accordingly, the work of thoroughly cleaning the stairs, basements, and floors of the very numerous ruins of Anurádhapura, formerly excavated, was systematically undertaken.

By the end of the year 200 sites and upwards at Abhayagiriya, Séla Chaitiya, Ruwanveli. Thúpárama, Toluvila, and Puliyankulama had thus been all virtually re-dug.

Polonnaruwa.

Similarly, at Tópáwewa the ruins were well cleaned on the promontory overlooking the tank—in the area on the Minneriya road marked by the cluster of Hindu Déválés—and upon the raised quadrangle near the Citadel containing some of the most important edifices of Polonnaruwa (“Thúpárama,” “Wata-dá-gé,” “Satmahal Prásáda,” &c.).

Towards the close of the season the question of battling with the formidable growth of trees and vegetation on the two great dagabas (Kiri Vehera: Rankot Vehera) and the larger ruins (Jétawanáráma, &c.) was seriously faced.

Vegetation had laid a terrible grip on the magnificent ruins, and for years been surely working their certain, if slow, destruction. Drastic action was necessary; for serpentine roots of innumerable trees had penetrated deep into the masonry and caused yawning cracks, already lessening greatly their stability. From their height and conformation these structures cannot safely be scaled and cleaned during the prevalence of the strong south-west wind.

The work of eradication proved heavy, and attended with no little risk. Some of the roots are as thick as a man's thigh, and the towering walls of the brick viharés too fragile at top to permit of strong blows with full-sized axes. Small “Veddá axes” had to be used, and served well; but could only cope effectively with the countless massy roots by gentle and prolonged chopping.

As the result, both the dagabas, the so-called “Jétawanáráma,” “Thúpárama,” and “Heṭṭa-dá-gé” Viharés, and the “Satmahal Prásáda” (Seven-storied Shrine) were thus attacked and steadily conquered during the autumn.

By yearly attention it will now not be difficult to keep these ruins free of similar uncontrolled growth in future.

“Demala-Máha-Séya.”

Further afield the undergrowth surrounding the strangely misnamed “Demala Máha Séya”^c ruin was cleared, and its top and

* This is but one of the several *misnomers* recklessly affixed to Polonnaruwa ruins, e.g., “Daladá Máligáwa,” “Thúpárama,” “Vishnu Dévalé,” “Nayipena Viharé,” &c.

exterior walls stripped of the vegetation which (as at "Thúpáráma," "Jétawanáráma," &c.) had taken free root. This ancient viháré is situated nearly three miles north of the promontory with its ruins, and a mile or more beyond the "Gal Viháré."

The real "Demala Mahá Séya"—"the great Thúpa one thousand three hundred cubits round about," constructed by Parákrama Báhu the Great—lies between the two, a huge forest-covered hillock with no marked indications of its identity save magnitude and position. "It was," says the *Mahāvamsa* (LXXVIII., 81), "the greatest of all the thúpás, like unto another Kailasa; and it was called the *Damila Thúpa* (or Séya), because that the Damilas (Tamils) who were brought here from the Paṇḍu country, after it had been conquered, were also employed in the building thereof."

The true name of the ruined brick-built viháré, wrongly styled "Demala Mahá Séya," is at present uncertain. No inscription has been discovered there yet; but the ruin was only partially excavated in 1886.*

This ruin resembles "Thúpáráma" (so-called) in general lines, with some important modification; but is much better preserved. Its surface ornamentation, too, is both fuller in detail and more complex. The roof of vestibule and shrine alike has wholly collapsed, partly filling the interior, partly fallen outwards.

The vestibule seems to have been excavated in 1885-1886. About the same date one or two of the paintings (Játaka stories, &c.) on the walls were copied in water colours by Mr. A. Murray of the Public Works Department.

The shrine itself is still choked with tons of brick and mortar *débris* from the roof, and will present no mean task to the excavator.

A large slice of the exterior wall of the shrine at its north-east angle had fallen since 1904. Other parts are about to follow.

The sooner, therefore, this fine ruin is excavated and full drawings made the better. A start will, it is hoped, be made next season.

In the jungle about 100 yards south of this ruin, and yet hidden in jungle, is a raised site and portion of a brick wall, almost certainly pointing to a "Waṭa-dá-gé" ("Circular Relic house"). The path to the "Demala Mahá Séya" passes over what is probably its outer *maḷuva* or platform. This site was cleared in connection with the viháré.

Excavations.

The only fresh excavation attempted in 1905 was at the ruin, popularly styled "Rája Máligáwa," within the Citadel at Polonnaruwa. This beautiful oblong building, 75 ft. 6 in. by 33 ft. 6 in.,

* Sessional Papers, 1886, X., "A year's work at Polonnaruwa" (S. M. Burrows).

with its bold *makara* wings and lion-guarded staircase, is, among *Buddhist** stone ruins of Polonnaruwa, second only in elegance and profusion of sculpture to the unique “*Waṭa-dā-gé*.”

Fortunately all the carved slabs of the high (11 ft. 6 in.) triplicated stylobate, and nearly every one of the twenty chaste inner columns, still remain unbroken. But there were ominous signs of imminent slip of several stones now tottering to their fall, forced outwards by the gradual sinking and “thrust” of the upper members of the basement.

In view of the high architectural importance of the ruin and great risk of wholesale collapse in places, it was decided to clear away *débris* upon and around the ruin so as to open out this handsome stone structure to full view from all sides, to remove at once all vegetation threatening to further push out the stone-faced revetment, and to at least provisionally reset fallen slabs and straighten leaning pillars. †

All this desirable work was completed before the season closed. Every slab of the stylobate has been found and replaced on fairly true lines: and the effect is exceedingly pleasing. The first gangway is faced with elephants, the second with a dado of lions (both in profile), the third with one of posturing *ganās* or dwarfs. Every figure is shown singly between pilasters. The edge of the coping surface of the two lower gangways is adorned with a neat band of leafy creeper pattern, that of the uppermost with *hansas* and a foliated fillet.

Although the so-called “*Rāja Māligāwa*” and the large brick ruin west of it with tall massive walls (the fictitious “*Hira-gé*,” or Prison) are the sole structures above ground within the Citadel confines (about one-fourth of a mile square), excavation pointed to the whole of the area being probably once covered by minor buildings, cross walls, bye-streets, &c., lying buried some 3 or 4 feet below the surface.

It is more than ever certain therefore that the full excavation of Polonnaruwa must occupy far longer than the period estimated from ruins above ground.

Circuit.

The Assistant to the Archaeological Commissioner, Mr. J. Still, did some useful circuit work early in the year (March and April). The country visited included most of the eastern half of the *Vaṇṇi* (Northern Province) and several villages in the north-eastern corner of the Eastern Province.

* The equally striking, and hardly less ornate, “*Daḍadā Māligāwa*” and “*Vishṇu Dēvalē*”—both misnamed, being in reality shrines sacred to *Siva*—belong to the *Dravidian* style of Hindu architecture.

† The regular restoration of this handsome structure may follow that of the “*Waṭa-dā-gé*.” It will involve relaying the stairs and stylobate slabs in concrete and pointing joints in mortar, all the old work being “dry-laid.”

The most interesting of over a score of places visited were Periya Puliyaikulam (with its wilderness of rocks and caves) and the neighbouring hill of Erapotana; Kuruntan Malai and Kuruntan Ne (which must have been a very large town, and would very probably repay excavation); the rocky monastery of Kumbukkan Malai; and Kandaswami Malai on the west shore of the Kokkilay lagoon.

More than fifty cave inscriptions were copied by Mr. Still on this tour.

Sigiriya.

A small gang carried out the annual cleaning of the Citadel on Sigiri-gala in the Central Province, and of the highest terraces skirting the Rock's base to north, west, and south.

On the steep slopes of the Rock's summit a carpet of strong grass has grown, helping to holding the brickwork banks, and preventing further washaway. This grass is, therefore, merely freed of plants and burnt every year. A clean sweep of all vegetation would but result in a continuance of the heavy scour which occurred each monsoon until this grass grew and protected from rapid denudation the ruined walls fringing the summit.

In 1904 the restoration of the portion of the gallery staircases and walls beyond the iron bridge (which unites with the gallery along the Rock's west face) was finished.

During the short season of 1905 the reconstruction of the retaining walls and stairs of the "Lion-staircase-house," which lead to the foot of the ladders, was nearly completed. This work was essential, as the approach to the ladders was in places hazardous, and another year's delay might have seen the top of the brick mass slide down entirely, cutting off all access.

The iron framework for the wire netting in the smaller of the two "fresco pockets" A.B. was finished in 1904, and its front completely wired in. The door into the "pockets," at the point where the wire rope ladder mounts, alone remains to be fixed.

Practically full protection is now afforded to the unique paintings of Sigiriya.

Miscellaneous.

By staying his hand for the time from further excavation, the Archaeological Commissioner was able to advance substantially the record of the Department's work.

The belated Annual Reports of the Archaeological Survey for the eleven years 1890-1900 inclusive, with a Summary of Operations, 1890-1900, have been issued together.

Index to the "Mahāvaṃsa" (English Version).

A good Index has been a great want long felt by students of the *Mahāvaṃsa*, the chief chronicle of the Kings of Ceylon.

Mr. Still set himself to this laborious task in 1905, and has patiently carried it through in the most thorough manner.

The Index comprises an alphabetical list of names of persons, places, buildings, tanks, channels, &c., in fact *all* names in the *Mahāvamsa* ; and each shows under its heading a summary of its history. There is also a chronological list of wars, campaigns, and battles ; and genealogical trees of the several Royal Families.

This Index should therefore prove worthy of the great historical work. It will be published by the Government.

Catalogue of Finds.

A "List of Archæological Finds" is in course of preparation. It is intended to be the precursor of a fuller and more detailed catalogue, with larger and more numerous illustrations.

A mere list of articles and of fragments of all sorts and descriptions found, can give but an incomplete idea of the manner of old time craftsmen of the Island, unless aided by photography.

The Catalogue will furnish a short description of each object (often only a name), and will mention where each was found. A large number of typical specimens, and of the objects which seem most worthy of representation, will be figured in the Plates with which the present List will be illustrated.

Of these illustrations, the majority will depict bronze work, iron tools, weapons, and fittings, and articles in crystal and glass. Pottery and stone work will be represented by selected types.

The Catalogue thus illustrated will be of value in enabling Ceylon "finds" to be compared with those in the Museums of India and other good collections of ancient Buddhist and Indian specimens.

COUNCIL.

Two Members of the Council of 1904, viz., Messrs. J. C. Willis and M. Kelway Bamber, being by virtue of rule 16 deemed to have retired by least attendance, and by virtue of the same rule Dr. W. G. van Dort and Mr. C. Drieberg having vacated their places, but two being eligible for re-election, Dr. J. C. Willis and Mr. C. Drieberg were re-elected, and the vacancies in the Council were filled by the appointment of Messrs. R. G. Anthonisz and H. F. Tomalin.

A long standing vacancy in the Council was filled by the appointment of Dr. W. H. de Silva, M.B., C.M., F.R.C.S.

The vacancy caused by the resignation of Mr. H. F. Tomalin, who left Colombo at the close of the year, remained unfilled.

FINANCES.

The receipts during the past year amounted to Rs. 3,786.58. compared with Rs. 3,123.13 in 1904. The balance at the beginning of 1905 was Rs. 1,711.97. The closing balance was Rs. 92.47 ; but Rs. 2,000 has been placed on fixed deposit from 1st April, 1905. The accounts are duly balanced ; but the process of auditing is not yet completed. The audit will be laid before next Council Meeting

Balance Sheet for 1905.

RECEIPTS.	Rs.	c.	EXPENDITURE.	Rs.	c.
Balance from 1904 ..	1,711	97	Books Account ..	..	121 6
Amount transferred from account in previous Treasurer's name (omitted from 1904) ..	..	6 25	Charges Account ..	..	432 36
Sale of Journals (February 1) ..	..	11 30	Establishment and Salaries ..	..	314 20
Sale of books (October 5) ..	..	2 0	Printing and Binding Account ..	..	826 49
(Government grant for 1904 (March 16) ..	..	500 0	Placed to Fixed Deposit (April 1) ..	..	2,000 0
Balance of Life Membership ..	..	6 50	Balance, Bank of Madras ..	Rs. 82 64	
Entrance fees (twelve at Rs. 5.25) ..	..	63 0	Balance, cash in hand ..	Rs. 9 83	
Annual Subscriptions :—					92 47

	Rs.	c.
1898 ..	10	50
1899 ..	10	50
1900 ..	15	75
1901 ..	42	0
1902 ..	48	0
1903 ..	151	75
1904 ..	225	25
1905 ..	965	81
1906 ..	16	0
	1,485	56
Total, Rs.	3,786	58

Total, Rs. 3,786 58

RONALD H. FERGUSON,
Honorary Treasurer.

5. On the motion of Mr. C. J. M. Gordon, M.A., seconded by Mr. P. D. Warren, the Annual Report was adopted.

6. The following Office-Bearers were elected on a motion proposed by Dr. C. A. Hévávitárana and seconded by Mr. T. P. Attygalle:—

President.—The Hon. Mr. John Ferguson, C.M.G.

Vice-Presidents.—Mr. J. P. Lewis, M.A., C.C.S. ; Mr. P. Freudenbergl, J.P. ; A. Willey, M.A., D.Sc., F.R.S.

Council.

Mr. C. M. Fernando, M.A., L.L.M.	The Hon. Mr. S. C. Obeyesekere.
Mr. A. M. Gunasekera, Mudaliyár	The Hon. Mr. P. Arunáchalaml, M.A., C.C.S.
A. J. Chalmers, M.D., F.R.C.S.	A. K. Coomaraswámy, Sc.D.
J. C. Willis, M.A., Sc.D., F.L.S.	Mr. E. B. Denham. B.A., C.C.S.
Mr. C. Driberg, B.A., F.H.A.S.	Mr. S. de Silva, Mudaliyár, Chief Translator to Govern- ment.
Mr. R. G. Anthonisz, Govern- ment Archivist.	
Dr. W. H. de Silva, M.B., C.M., F.R.C.S.	

Honorary Treasurer.—Mr. R. H. Ferguson, B.A.

Honorary Secretaries.—Mr. H. C. P. Bell, C.C.S.: Mr. J. Harward. M.A. : Mr. G. A. Joseph.

7. The PRESIDENT then delivered the following Address :—

YOUR EXCELLENCY, LADIES, AND GENTLEMEN,—My first duty clearly is to return thanks in the names of the Office-Bearers of the Society for the honour you have just conferred upon us by our election, and in a special way for my own re-election as President. I am very conscious that I have done nothing to deserve this mark of confidence. A year ago I distinctly intimated my intention not to seek re-election, and it is only in deference to the wishes—I may almost say the urgent request—of two such pillars of the Society as Mr. H. C. P. Bell and Mr. J. Harward that I agreed reluctantly to continue in the office, if that proved to be the wish of this anniversary meeting.

As regards the future of the Society, we, Office-Bearers, greatly depend on the good-will of Members able to make suitable contributions to our Journal and to take part in discussions arising thereon, and although fresh, stimulating Papers of special interest have not been too numerous during the past few years, yet I am glad to think that the prospect is such that there is not much likelihood of my being, for the coming year at least, like some of my predecessors, a President in search of a Paper any more than of a quorum. Meantime, I have to confess that in a moment of weakness I was rash enough to promise a

Presidential Address on the present occasion. It was only when I looked into some of the very able, learned, and full Addresses delivered on similar occasions from this Chair that I realised how daring it was to undertake such a duty. More especially as many of my predecessors in office did not at all feel it incumbent upon them to deliver an Annual Address, or even any Address at all. It is noteworthy that two such eminent past Presidents as Sir Emerson Tennent and Sir Edward Creasy never addressed the Members; and I learn from our Honorary Secretary Mr. Joseph that, in the more than sixty years of the Society's existence, only twelve Presidential Addresses have been delivered.* The custom, therefore, of Annual Addresses has been "more honoured in the breach than in the observance."

I am not going to review the early history of the Society, for that was done in our Jubilee year with great fullness, clearness, and ability by Dr. Copleston (now Metropolitan of India), who was our President for the long period of sixteen years, by far the longest term of office in the Society's annals. But there are two or three points connected with the past not touched on by the Bishop, which (in looking over the series of Addresses and the Journals containing them) I thought it might be of some interest to bring to your recollection or consideration.

To the Hon. Mr. Justice Stark the Society owed much for the great interest he took in its initiation and working. He delivered a suitable and encouraging Address at the first General Meeting in May, 1845, in which he pointed out that the Society "would collect scattered rays of information possessed by different individuals, and would also tend to raise up and encourage a literary and scientific spirit." A year later, after touching on the different Papers read, he wound up an exposition of the work before the Society in eloquent words, which I will venture to quote as, even now, very true and applicable. In contrasting the development of Ceylon during the past hundred years with the experience of the previous 2,000 or more years of

* *Names of Presidents who delivered Presidential Addresses (with dates).*

The Hon. Mr. Justice Stark	..	{ May 1, 1845
		{ May 4, 1846
Col. A. B. Fyers	..	{ January 16, 1871
		{ November 7, 1872
C. Bruce, C.M.G.	..	{ December 16, 1880
J. F. Dickson, C.M.G.	..	{ December 16, 1881
		{ December 22, 1884
		{ December 21, 1885
		{ December 16, 1886
		{ December 19, 1892
		{ February 26, 1902
Right Rev. R. S. Copleston, D.D.	..	{ December 11, 1895
		{ Historical Sketch
		{ for Jubilee Anni-
		{ versary.
		{ Farewell Address.
His Excellency Sir E. im Thurn, C.M.G.	March	2, 1904

authentic history, President Stark said: "The influx of people which prevailed from the earliest period still continues to pour down upon the Island, but with this difference, that the tide of population now spreads over the land not to lay it waste, but, under the direction of British industry, to bring out its capabilities. In former times every new band of comers was an army of invasion. Now, under British supremacy, there is immigration without conquest; and conquest involves neither extermination, nor slavery, nor a compulsory change of faith, but a common patriotism, and that all should feel it to be at once their interest and their duty to co-operate together in maintaining the common fabric of which they are all members."

Increase of Population.

One remark Mr. Justice Stark made as the result of his own observation, which stands in striking opposition to actual experience since the first Census was taken in Ceylon. He was referring to the relative increment or decrease of the different races—Sinhalese, Malabars, "Moors"—in the Island, and remarked that "to observation there appears a daily increase in the number of Moors, as there is also perhaps a decrease in the Sinhalese population." It is impossible to say how far such a remark was justified in 1846; it excited no comment or objection at the time; but during the past thirty-five years we have reliable evidence in successive Census returns that no section of our varied population has increased in so liberal a ratio as the Sinhalese, as may be seen from the following interesting return which is given in the latest Census Report by the Registrar-General, and which shows that the Sinhalese increase at a higher ratio than Moormen, although beaten by Burghers; while the figures for Tamils and Europeans are influenced generally by "immigration":—

	1871.	1881.	1891.	1901.	Percentage of Increase in thirty years
Sinhalese..	1,664,459	1,846,614	2,041,158	2,330,807	40
Tamils ..	537,814	687,248	723,853	951,740	77
Moormen..	163,729	184,542	197,166	228,034	39
Malays* ..	—	8,895	10,133	11,902	—
Burghers..	15,335	17,886	21,231	23,482	53
Europeans	3,259	4,836	4,678	6,300	96

Changes in Administration and useful "Papers" in the past.

And here you will be reminded of the vast change which has taken place in many departments of investigation which the founders of the Society naturally aimed at, including within its

* In 1871 the Malays were included among "Others." who numbered 13,754.

scope sixty years ago. The first President remarked at the outset on the great deficiency in statistical information. The administration of the Colony was then in a very primitive state, confined almost entirely to Kachcherie and Law Courts, and these comparatively few and far between, without the many separate Departments dealing with Public Instruction, Public Health, Registration and Vital Statistics, Crime, Police, Prisons, the Botany and Agriculture of the Island. Very thin and inadequate Papers on rainfall and climate were welcomed by the Society at a time when systematic meteorological observations and valuable annual reports such as are now issued by the Surveyor-General, were undreamt of; and until the era of Annual Administration Reports from the Heads of Departments and Revenue Officers, in time followed by Manuals for the different Provinces, until the era of Annual Blue Books and "Ceylon Handbooks and Directories," and the taking in 1871 of the first regular Census of the people, this Society had to encourage and utilize as best it could much primitive preparatory work from gentlemen interested in the history, antiquities, the agriculture, trade, and general advancement of the Island.

Nevertheless, there are large stores of information not only of permanent interest, but of practical value, contained in the long record of the Society's publications, which up to date number no fewer than fifty-five Journals contained in some eighteen volumes.

Take, for instance, a topic very much in evidence at the present time and none more generally vital and important, that of Public Instruction, and I have been greatly surprised to find from valuable papers contributed by the Rev. J. D. Palm in the early years on Dutch Ecclesiastical and Educational Administration, how great was the progress made within the seaboard districts of Ceylon more than 150 years ago. We are accustomed to think of the Dutch rulers as selfish and mercenary; but the records of a long list of schools in the Colombo, the Galle and Matara, the Jaffna, Mannar, Trincomalee, and Batticaloa Districts show that between 1750 and 1780 there must have been at times as many as 91,509 children attending school, and more wonderful still, a very large proportion of these—a preponderance in the Colombo District—were girls. Considering how small a portion of the Island the Dutch really held, as may be judged from one of the old maps shown here for the first time to-night, and the comparatively limited total population, this attainment in schools and scholars was truly wonderful. In holding slaves in Ceylon, the Dutch rulers merely followed the general rule; but it is greatly to their credit that they provided schools for the slave children, who were taught to the number of 2,180 in 1786. They also had a seminary for the training of native teachers as well as native "preachers," and it is curious to note that the latter held the same rank and remuneration as *Mudaliyars* of *Kóralés*. The way in which 350,000 so-called Protestant Christians among the natives rapidly disappeared in early British times shows the unreality of the work done by State-paid Dutch ecclesiastics; but we may believe that the generations who passed through the

schools, even with elementary vernacular instruction, got lasting benefit.

Another Paper bearing on a subject much before the public in the present time was "On the Rise and Fall of the Kelani River in 1843-4-5-6," by Mr. John Capper, illustrated by rather primitive diagrams, the whole being in strong contrast with the elaborate, valuable, and specially illustrated report recently issued by the Surveyor-General, backed by the Commission's report on soil denudation in the Kelani Valley. Mr. Capper remarks on destructive inundations in 1844, and how the injurious effects in successive years were mitigated by constructing sluices towards Grandpass. In this connection may we not expect from the Dutch Records now being examined and translated, some light on how to deal with the periodical floods around Colombo? Surely the Hollanders, of all people under the sun, must have had some effectual means of coping with the troublesome overflowing of the Kelani- and Kalu-gangas?

The Great History of Ceylon.

But there are Papers in our Journals of far more general interest than those thus referred to; Ceylon and Sinhalese literature are pre-eminently rich in ancient monuments and ancient records. There is nothing in Hindu or other Eastern literature to compare with the *Mahāwamsa* or Great History of Ceylon, and although there is much in it that is truly childish and ridiculous—oceans of ghee, mountains of flowers, thousands of monks travelling through the air—and although Mr. H. Parker especially has shown in our Journals that many of the figures require correction, yet as an historical record from the time Buddhism was introduced into Ceylon, 250 B.C., it stands unimpeached and unimpeachable. Nevertheless, how few of us take a real interest in this "Great History."

Although there are English translations available, not many perhaps can find time to read through the whole Sinhalese history. Let me commend to such a perusal of the special and discriminating report on the translation of the *Mahāwamsa* by the late Mudaliyār L. C. Wijesingha, which will be found in our Proceedings for 1886. As a means of interesting the ordinary reader and of introducing him to the "Great History," nothing could be more admirable.

With this I would couple the Address "On the Verification of the Ancient Chronicles and Histories of Ceylon," which was delivered by our President—the present Metropolitan of India—in March, 1892. This Paper has a double value: first, because of its critical acumen in dealing with Ceylon history; and secondly, as pointing the way in which even ordinary Members (not learned Orientalists or linguists) may aid in verifying our ancient chronicles. Curiously enough the Bishop suggests one "possible test connected with trees," which has a bearing on our after-proceedings this evening. His words are: "I do not know when the coconut was introduced into the Island." But our historian says a good deal about coconuts in connection with the reign of the same Prakrama

II. in the thirteenth century (chap. LXXXVI.). Can we trust the history securely enough to say that the coconut had certainly been introduced as early as that, or shall we find from other sources that it was introduced later and so convict the author of the *Mahāvamsa* of writing from imagination? I need scarcely say that the historical as well as botanical accuracy of the *Mahāvamsa* here and at a much earlier date, where it refers to coconut palms, will be amply borne out in the Paper which is to be brought under your notice later on this evening.

Let me give the ordinary Member or reader an illustration from an even later date, and of specially local interest, of the *treasures* which will be found in our Journals. This is the account of "Alakéswara: His Life and Times," by Advocate E. W. Perera, published two years ago, full of romantic excitement and "news of battle," of which the scenes, including invasions successively by large armies of Tamils and Chinese, were chiefly laid in this Western Province and in the vicinity of Kotté, which, it must be remembered, was for over two centuries the seat of the Sinhalese Government. What is told us there of battle fields (occupied by Chinese, Tamils, and Sinhalese) and of historical sites, all in or near a place only a few miles from Colombo, ought to stir the most somnolent amongst us to take an interest in the chronicles and monuments of the past.

Śri-pada on "Adam's Peak."

In this connection I must call attention to an interesting conclusion arrived at by the late Mr. Wm. Skeen in a full and evidently carefully prepared Paper contributed by him to our Journal of 1870-71, in reference to the "Origin of the Śri-pada, or Sacred Footprint on the Summit of Adam's Peak." In his book on "Adam's Peak," with map and illustrations, published some time before, Mr. Skeen concluded, from the information then before him, "that the belief in the existence of the footprint was not of an older date than a century and a half before the Christian era," but he was doubtful if even it was as old. Subsequent investigations, in which Mr. Skeen was backed by such competent Orientalists as the late J. Alwis, Mudaliyār L. de Zoysa, and Rev. C. Alwis, convinced him that the origin of the belief must be dated several centuries later. He found that nothing was known in Ceylon about it before 302 A.D.; but that, about this time, Chinese writers speak reverentially "of the sacred footmark impressed by the first created man;" and Mr. Skeen considers it by no means improbable that this ancient tradition was grafted on to Buddhism and attributed to Buddha at a later date. Any one interested should read Mr. Skeen's paper and argument, to which, so far as I know, no answer has been made.

Buddhist Temples and Dagabas.

Some, again, may like to know if the statement made by Sir J. F. Dickson, when our President in 1884, is accepted as fact, that not until a lapse of from 300 to 400 years after the death of Gautama was there any temple to, or figure of, Buddha known. And.

again, that dagabas had originally existed in modified forms as tombs for saintly characters in ages long past.

Maldives.

I might remind you that our Society has not confined its work or interest to this Island, in view of what has been done through Mr. H. C. P. Bell, Mr. Albert Gray, and others (who have contributed to our Journals) towards the elucidation of the history of the Maldives, "the 12,000 isles" of tradition, whose Sultan, although his subjects probably do not number more than 30,000, undoubtedly occupies one of the most ancient of Eastern thrones, though now a Protectorate under British rule as represented by the Governor of Ceylon.

Archæological.

But it is in connection with his prolonged and most important work as Archæological Commissioner that Mr. H. C. P. Bell has been able to do so much to add to the interest of our proceedings, an interest which continues to this day, and which we trust may go on for many years to come.

Recent Work : "Dutch Records," and other Publications.

It is time, however, that I should turn from the past to consider the more recent work of the Society and the promise for the future. Since the departure of Sir E. F. Im Thurn, K.C.M.G., in September, 1904, seven papers have been accepted by the Council and read at General Meetings. It must not be supposed that these are all the contributions offered to the Society; the Council and its advisers discriminate and endeavour to keep up a certain standard. I am not going to specify or dwell on the papers read, because they have already been named in our reports, and have so recently been before you. Suffice it to say that they very fairly cover several of the departments—historical, archæological, social, agricultural, and art—which come within the scope of the Society; and are either by tried and valued contributors, such as Vice-President J. P. Lewis, Messrs. C. M. Fernando, and F. H. de Vos; or new and highly esteemed Members like Dr. A. Coomaraswamy, Mudaliyar Gunawardana, and Mr. J. Still, Assistant to the Archæological Commissioner. The demonstration of colour photography as applied to animals and plants (with lantern illustrations) given by Professor Saville-Kent in this room some weeks ago was much appreciated, and on this gentleman's return to the East we may have another interesting lecture from him.

Under the headings of "Literature," "History," and "Oriental Studies," I may be allowed first to call attention to the "Committee on Oriental Studies," originally formed in 1902 by Mr. S. M. Burrows, when acting as Director of Public Instruction, and of which Mr. Harward is now Chairman, with Mudaliyar Gunawardana, Secretary, and a Standing Committee of five Sinhalese members out of a total Committee membership of 53. From the

report published for 1904-05, it will be seen that the Committee has done a useful work in encouraging systematic and methodical study at the Oriental Colleges in Sanskrit and Pāli; that there is no lack of students or competitors at the annual examinations; and that much general interest has been excited among Sinhalese scholars in the object and working of the Committee. In this connection, you will have noticed from the advertising columns of the newspapers that our Honorary Secretaries have been empowered by a gentleman who does not wish his name to appear, to offer a prize of Rs. 50 for the best essay on one of the following three subjects:—

- (1) Sumptuary Laws and Social Etiquette of the Kandyan.
- (2) Kandyan Music, including the Origin and History of Kandyan Music, the System of Notation, and the different kinds of Airs and Songs, extinct and extant.
- (3) Kandyan Medicine.

The object of the prize is to get Kandyans to describe Kandyan customs that are going out of use and memory. The competition shall be open to all, and the essays may be in Sinhalese or English.

Our Society has always taken a great interest in the publication of translations of the records of the Dutch in Ceylon, and owing to the liberality of the Government in making a grant towards the expense, very many and extensive selections have appeared in our Journals from time to time. It is a question worthy of official consideration as to whether this form of publication (rather than an independent issue) should not be continued, so as to keep up the connection with the Society and to maintain a certain degree of uniformity. It is possible that a wider interest would be secured in view of discussions which might take place over translations or selections read at General Meetings of the Society. At the same time there can only be the fullest approval of the policy which has led to the formation of a separate department to deal with the Government Archives and the indexing of the Dutch Records, under the very competent direction of Mr. R. G. Anthonisz, who has been Examiner since July, 1899, and was appointed Archivist and Librarian on 1st January, 1902. I have learnt from Mr. Anthonisz that, before the actual indexing of each separate volume can be taken in hand, it has been found necessary to classify, arrange, and catalogue the records. There are in all about 10,500 volumes consisting of the general records of the Dutch Government, the Proceedings of the Political Council, the Provincial Records of Galle, and the *Thombus* or Land Registers. Catalogues of the General Records of the Island and of the Provincial Records of Galle have been completed; but the General Records, which are various, have still to be classified. Miss Pieters is at present translating the Memoirs of the Governors and Commandeurs. She will afterwards take up the Diaries for the various years and the Resolutions of Council, in which a fairly complete contemporary record of the translations of the Government from 1640 to 1796 is preserved. Some of the Memoirs translated are to be printed, and it is these that might with

advantage, I think, pass through the hands of our Council (of which Mr. Anthonisz is a Member) and into the Journals of the Society. Meantime special interest attaches to the Memoir left by Jacob Christian Pielat to his successor Diedrick Domburg, 1734, translated by Miss Sophia Pieters, with an Introduction and Notes by the Ceylon Government Archivist, and lately issued from the Government Press. This has been the subject of a generally favourable if discriminating review by Mr. Donald Ferguson, who suggests that transcripts of the earlier Dutch Governors' Memoirs, which no longer exist among the Ceylon archives, might be got from The Hague; or, if they do not exist there, that translations of the portions printed by Valentyn would to some extent supply the deficiency.

Although the year of its publication is 1904, mention should be made of the first part of so important a work in connection with our Archaeological Survey as the *Epigraphia Zeylanica*, being lithic and other inscriptions of Ceylon, edited and translated by Don Martino de Zilva Wickremesinghe, Epigraphist to the Ceylon Government and Librarian and Assistant Keeper of the Indian Institute, Oxford. The further Parts of this valuable work will be welcomed by all interested in the past history and monuments of Ceylon.

Professor W. Geiger has published in German a critical account of the *Dipawansa* and *Mahāwansa*,* which forms a sort of prolegomena to his forthcoming and eagerly anticipated critical edition of the *Mahāwansa*. An English translation, I am glad to say, is being made by Mrs. Coomaraswamy, and will be published by Government in 1907, the consent of author and of publisher having been received. Professor Geiger promises to add a special preface to the English edition.

The work of the "Pāli Text Society" in England must always be of interest to this Society, and a connection is kept up through one of our Members, Mudaliyār E. R. Gooneratne being the Honorary Secretary in Ceylon. The Ceylon Government, too, is a subscriber for twenty copies of all the Society's publications. The recent receipt of the sixth volume with indexes for our Library shows us that up to the end of 1904 this Text Society, in the twenty-three years of its existence, dealt with 43 texts and issued 55 volumes with 16,000 pages. The programme for 1905-07 includes much that is of special interest.

There are interesting popular papers included in some of the volumes in our Library, which ought to be consulted; for instance, Mr. Rhys Davids has "Some Notes on the Political Divisions of India when Buddhism arose," from which we learn, for the first time, that the earliest Buddhist records reveal the survival, side by side with more or less powerful monarchies, of *Republics* with either complete or modified independence. Mrs. Rhys Davids, too, occasionally contributes versions of amusing "Jataka or

* "Dipawansa und Mahāwansa und die geschichtliche Überlieferung in Ceylon," von Wilhelm Geiger, Leipzig, 1905, M. 4-50.

Birth Stories of Buddha," such as that which she entitles "The earliest Rock Climber."

In this connection I must mention the "Proposed Oriental School in London," recently referred to in the London *Times*, and which has long been desiderated by the present Royal Asiatic and other Asian Societies in order to provide a means of instruction in Oriental languages in the British Metropolis, comparable to the "Orientalische Seminar" of Berlin, which has a grant of £8,000 from the German Government, besides the necessary buildings, a fine library, and an admirably conducted journal. Paris and St. Petersburg are also similarly and handsomely provided, and it seems a shame that the Empire which has most to do with the East should be so far behind. A Committee is likely to report to the Home Government on the subject.

Further evidence of the publishing enterprise of the Ceylon Government is found in Dr. Herdman's monumental work on our Pearl Oyster Fisheries, with supplementary reports upon the Marine Biology of Ceylon by other Naturalists. Of this very important series, three parts finely printed and profusely illustrated have appeared, and a fourth part will complete the undertaking—one that cannot fail to reflect credit on the Colony and its Government which requested the Royal Society to undertake the publication, as well as on the chief author and editor and his colleagues.

The lists published and prepared for the *Government Gazette* of all works published in the Colony during 1904 and 1905 testify to the great activity of the Press in this Colony both in English and vernacular printing. No doubt many issues are of an ephemeral and inferior character; but undoubtedly much to enlighten and improve the people passes through the Press in Ceylon.

Archæology

The Society has always been deeply interested in archæological exploration, which, indeed, was commenced under its auspices during the time of Governor Sir Arthur Gordon, now Lord Stanmore. It was also very much on the representation of the Society that the systematic Archæological Survey under the very competent direction of Mr. H. C. P. Bell as Archæological Commissioner, was first started in 1890 by the same Governor; and Mr. Bell's continuance as Honorary Secretary of this Society, and above all his most interesting summaries of the work done, contributed year by year to our Annual Reports, has kept up the close connection originally established.

You will have been pleased to learn from the report this time that the protection of the Sigiriya paintings is now complete; that, although much valuable work has been accomplished, there remains yet a great deal of exploration and excavation to execute at Polonnaruwa.

Mr. Bell and his active young Assistant Mr. Still (who is an excellent amateur photographer) are bringing out this year an "Illustrated List of Archæological Finds," which is certain to be

full of interest, and which, we may feel sure, will prove one of the best and most practical means of bringing home to the understanding of the general public the value of the work done by the Archæological Department of Ceylon, in which His Excellency, our present Governor, has taken the deepest interest since it came under his notice.

Another piece of good work done under the auspices of the Department is a very full "Index to the *Mahāvamsa*," on which Mr. Still has been engaged for several months back, and which will be found, I believe, very thoroughly executed. This index, to be printed by Government, must prove a great boon to students of the *Mahāvamsa*, as well as useful to the intelligent public.

I trust further that the sanction of Government may be received to a proposal which the Commissioner has long had in view, namely, the publication of a representative series of "Photographic Illustrations" of the ancient structures in Ceylon, after the pattern of the series already published by the Indian Government; and that a commencement may be made of a similar technical series of illustrations of art and ornament, like the fine set published in India.

This brings me to Art, and I am pleased to be able to remind you that the Museum has now received the beautiful copies in oils of the Sîgiriya frescoes made by Mr. D. A. L. Perera, Head Draughtsman, Archæological Survey. They need perhaps proper framing; but a glance at them above the Museum staircase will show what a great improvement they are on any representations hitherto exhibited.

I am also glad to record here that Dr. A. Coomaraswamy has taken up the study of old Sinhalese (Kandyan) art, and, in addition to pamphlets and articles already published, has in preparation a large work on the subject illustrated by coloured and photographic plates. A series of over a thousand photographs have been taken with a view to this work.

An appeal has also been made for the preservation and more careful treatment of ancient buildings and historical works of art, and it is hoped that something will be accomplished towards this end, as the subject has been taken up by Government, and a register of old buildings, &c., in the various districts is being made, and these will be as far as possible protected. The continued existence of, and the useful work promoted by, the Ceylon Society of Arts, with its annual exhibition, is a subject for congratulation.

Science and the Colombo Museum.

The Mineralogical Survey of Ceylon, originally intended to last three years, is to be continued to the end of the present year. It has so far resulted in very considerable additions to our knowledge of the Geology of Ceylon, and in the discovery of several minerals new to Ceylon (some of economic importance) and of one or more minerals new to Science. The new mineral thorianite is the first

thorium-bearing mineral to be found in any British possession. At the same time the geological and mineralogical collection at the Museum, originally very scanty, has been very largely added to, re-organized, and re-arranged by Dr. Coomaraswamy and Mr. J. Parsons in a separate room known as the Mineral Gallery. Dr. Coomaraswamy is of opinion that the time has not yet come for the establishment of a regular Geological Survey in the Island; but he has recommended the employment of one permanent Government Mineralogist.

In connection with recent improvements effected in the Museum, there should be mentioned the valuable students' collections of Lepidoptera, Land Mollusca, Reptiles, &c., as these are frequently consulted by interested visitors. Several gentlemen have kindly given Dr. Willey their assistance and experience in the arrangement of special groups, among whom should be mentioned Messrs. E. E. Green, F. M. Mackwood, and O. S. Wickwar. These collections are housed in the new building which was put up in 1903, and which has proved a very great benefit.

In connection with Zoology (and the prospect some day of a Zoological Garden for Colombo), Dr. Willey has been doing a public service in endeavouring to show some of the animals of Ceylon in the flesh by way of supplementing the stuffed specimens in the galleries. We may readily judge that without special provision it is not easy to exhibit live animals with permanent satisfaction, although the comparatively few exhibited have attracted very considerable attention, to judge by the number of persons of all races and classes who are found gazing at them almost daily. No doubt a small fee for admission in aid of the expense of upkeep, &c., would readily be paid, if the collection were so enclosed as to make this desirable. But unless the Government take the matter up, or a special Society is formed to provide a Zoological Garden collection, I fear there is not much further room for development. The exhibition of live birds does not present so many difficulties as in the case of four-footed animals, and I am glad to announce that a handsome aviary has recently been presented to the Museum by Mr. T. Sanmugam, in which some of the smaller birds can be located from time to time.

The Quarterly Journal—*Spolia Zeylanica*—established by Dr. Willey, sanctioned and printed by Government, has been regularly continued. It deals specially with subjects relating to the Natural History and Ethnography of the Island, and its object is to accumulate notes and records of the rapidly changing aspects of life of all kinds in Ceylon. Twelve parts, completing three volumes, have appeared (Part XII. is now passing through the press), and when the fifth volume is completed an index will be provided. Whether or not this periodical is fully answering its purpose cannot well be decided for the present. Its usefulness from a scientific point of view is undoubted. Dr. Willey thinks it might eventually be taken over by our Society and a fund started for its continuance. In that connection a suggestion, which comes to me from a prominent Member of the Society, may be mentioned, namely, that it would make *Spolia Zeylanica* far

more generally interesting if its scope were enlarged so as to admit all and sundry "Notes and Queries" respecting Ceylon subjects which are within the object of the Asiatic Society. It is thought that many Members and other residents would readily contribute to such a department who cannot spare time to work up a regular paper for our Journal. The discontinuance of the issue of *Monthly Registers* with "Notes and Queries" from the *Ceylon Observer* Press leaves a blank which apparently is felt by not a few, and the suggestions now made as to the future of this quarterly journal deserve careful consideration.

Before leaving the Museum, I must congratulate the general public and the Members of the Society on the early prospect at last of the enlargement or extension of the Museum buildings being taken in hand. It was first urged by the Society in 1898.

The Colombo Museum may be said to be the offspring of the Ceylon Branch of the Royal Asiatic Society. It is a special matter for congratulation, I think, that the services of the accomplished and experienced Architect (Mr. J. G. Smither, F.R.I.B.A.), who designed the existing Museum building for Governor Sir William Gregory, have been secured to design the extended wings now proposed in the time of that Governor's friend and successor, His Excellency Sir Henry Blake, and that the new buildings are likely to be carried out, as Mr. Smither has designed them in accordance with the views of the Director of Public Works, after approval is given by the Executive Government and the necessary funds are voted by the Legislative Council. I have no doubt that there will be unanimity in both Councils in respect of an improvement so long urged and so desirable in every way. Some of the beneficial results which may be anticipated when the extension is complete may here be indicated. The preparation and display of natural history groups and economic products can be carried out on a much larger scale than is at present possible. The economic products particularly are capable of considerable development and representation in the Museum,—a matter of great importance, as Dr. Willis has frequently shown, to the agricultural industries and trade development of the colony,—a matter, therefore, which should be regarded with much interest by our planting and mercantile community as well as by all agriculturists.

The addition to the exhibits of the objects of antiquity which have been discovered during past years by the Archaeological Commission and accumulated at Anuradhapura will enhance the reputation of the Colombo Museum among other kindred institutions, and will accord with the views and wishes of the founder of the Museum, Sir William Gregory, as well as I am sure with the express desire of His Excellency Sir Henry Blake. The stone inscriptions at present in the Museum and many other antiquities now at Anurádhapura can be exhibited and preserved in an adequate manner and to great advantage, thus placing the Colombo Museum relatively on a par with such Museums as the Neapolitan and Egyptian institutions, having the same bearing

with regard to the Buried Cities of Ceylon that the Naples and Cairo Museums have to the Buried Cities in their neighbourhood.

The reservation of a portion of the new buildings for the purposes of an auditorium is a matter which should be taken into consideration after the work is completed. The Museum Reading Room is at present used for the Asiatic Society's Meetings, for prize givings, and for lectures. But if special accommodation were provided for such gatherings, it would be an advantage. Further, the Museum extension will be of advantage in several other different ways. First, as regards the Asiatic Society; secondly, as regards the Museum Library, which is greatly cramped at present, and is constantly growing by the addition of new books, many of which are recommended and applied for by readers who are engaged in special work, mineralogical, archæological, ethnographical, &c. We may well consider it a happy omen that the extension of our Museum buildings is likely to be effected under the auspices of a Governor who takes such a specially warm interest in all connected with our ancient history and structures, with science and art, as does Sir Henry Blake. His Excellency's friend and predecessor, Sir William Gregory, said in his first year in Ceylon that he had always looked upon Museums as the best means of imparting instruction in the most popular and agreeable form, in which all classes and races might participate.

It ought to be mentioned that there are two libraries in the Museum, the Library of the Ceylon Branch of the Royal Asiatic Society and the Museum Library, the latter the only free public library in the Colony. The Library of the Ceylon Branch of the Royal Asiatic Society contains many valuable books on Ceylon, Archæology, Oriental Literature, Voyages (Hakluyt, &c.), India, &c., and a large collection of the publications of learned Societies with whom the Society exchanges its Journal. The policy of the Museum Library has been to acquire works of reference, natural science, Oriental literature, and books on Ceylon. Of these books, the library contains many rare and costly works (*vide* Sir West Ridgeway's Address on his Administration, p. 120). The Museum Library receives a copy of every work published in the Colony since 1885. The acquisition of all works relating to Ceylon goes on at an increasing rate, and the large accessions of recent years, both by donation and purchase, have placed the institution in the position of now possessing one of the best collections, if not the best, of Ceylon literature. The special characteristics of the Museum Library, besides a very good collection of books on Ceylon, are a most valuable collection of old manuscripts in Sinhalese, Pāli, and Sanskrit, a very valuable collection of books on Biology, Dictionaries, Encyclopædias, Journals, Books of Travel, Art, and Philology.

In 1870, during the administration of Sir Hercules Robinson, the Government undertook in a liberal spirit the task of rescuing the ancient literature of Ceylon, and founded the Government Oriental Library of Manuscripts, which is now a part of the Museum Library. Many valuable old manuscripts have been added by

donation, purchase, and transcription. The Museum Library is indispensable for purposes of indexing and illustrating its collections, and to the student the general collection of books and leading scientific and other periodicals received, offer invaluable facilities for study and research.

Observatory for Colombo.

I have next to refer to the need of an observatory for Colombo. For many years past it has been a standing grievance on the part of the ship captains calling at Colombo that they were not supplied with sufficiently correct time signals to enable them to rectify and rate their chronometers. The first project of establishing an observatory for the purpose was mooted over twenty-five years ago, when Mr. G. Wall's small but choice collection of astronomical instruments was on the market. With the increase in the importance of Colombo as a port of call, and in the speed of modern steamers, this grievance has steadily increased, and it has voiced itself persistently of late years. It is a remarkable fact that Ceylon is about the only Colony where correct time is not supplied. Observatories exist in India, Canada, Australia, Cape Colony, Natal, New Zealand, Mauritius, Hong Kong, St. Helena, Tasmania, West Indies, &c., where there is no single port approaching the importance of Colombo. Now that the Graving Dock is completed, this want of accurate time is likely to affect the use of our port seriously. Whenever a ship requires docking, her captain will evidently prefer taking her to Bombay for instance, whence he is certain to start with his chronometers properly set and rated, rather than to Colombo, where these facilities cannot be procured. The time received by telegraph from Madras is irregular and unreliable, and useless for the purposes of navigation, besides requiring the line to be cleared of messages for about twenty minutes every day between 3.40 and 4 P.M. Would not the value of the time lost to the Telegraph Department more than pay for the whole Observatory in a year or two? Apart from supplying time to ships, the establishment of an Observatory in Colombo will enable all the public clocks, those of the Telegraph and especially of the Railway Departments to be automatically regulated, and will ensure their pointing always to the correct time of day. We shall at last be spared the familiar but lamentable spectacle of the Clock Tower differing by five and even ten minutes from the Post Office clock, and both of them being incorrect. This state of things is utterly out of keeping with the degree of civilization to which we have attained.

The prospects of an Observatory being established are unfortunately not much better at present apparently than when the subject was mooted in the Legislative Council in June, 1903. The matter has been included three times in the Estimates in three different years, but only to be remorselessly cut out. The question has been before the Ceylon Government ever since 1897. Let us hope that it may be His Excellency Sir Henry Blake's good fortune before he leaves us to see a Colombo Observatory

fully established, and the reputation of one of the most important of Eastern seaports redeemed from reproach.

Botany and Agriculture.

To deal adequately with this very important and extensive subject would require a separate full address. Suffice to notice the formation of the Agricultural Society of Ceylon towards the end of 1904 by our present Governor as one of the most notable and important events within our record. Numerous branch societies (now numbering 42) in the different Provinces and districts of the Island have already been formed, and the membership of the parent Society is 1,035, and is growing every month, almost every week and day. It should eventually embrace every planter and intelligent agriculturist worthy of the name in the Island. An Agricultural calendar arranged for each month of the year and for the hill as well as low-country is the latest evidence of the enterprise of the energetic Secretary (Mr. Denham), who has had the assistance of the best local authorities in what, when printed in the vernaculars as in English, must prove of great use to all who take an interest in garden or field work throughout the Island. Mr. Herbert Wright's Manual on "Para Rubber, with illustrations," soon to appear in a second and enlarged edition, deserves a word of mention. In his Presidential Address on 16th December, 1881, Mr. (now Sir Charles) Bruce, G.C.M.G., made the following reference:—"The paramount influence of agriculture on the prosperity of this Colony has, to a great extent, removed the Department of Botany from the concerns of this Society to more open and more accessible channels of communication and discussion. The past year has been especially marked by the publication of the *Tropical Agriculturist*, a monthly periodical established by the editors of the *Ceylon Observer*, constituting in the strictest sense of the word a repertory (*repertorium ubi omnia reperiri possint*) of information on all subjects connected with tropical botany and agriculture. To its pages as to the report of the Director of the Botanical Gardens all who are interested in this subject will naturally refer for the operations of the year."

I quote the foregoing in order to mention that the monthly periodical referred to (which in the course of twenty-four years acquired a world-wide reputation as representative of everything connected with tropical agriculture) has now been transferred to the very efficient editorial guidance of Dr. Willis, Director of the Botanic Gardens, with competent assistants, and is now known as the *Tropical Agriculturist and Journal of the Agricultural Society of Ceylon*, and as such is sure to prove more deserving than ever of attention and perusal by all tropical farmers. Of the varied and important work done for agriculture in all branches, and for science, in botany, entomology, mycology, and chemistry, by Dr. Willis and his colleagues at Peradeniya and throughout the Island, in the Botanic Gardens and experimental stations or plantations for different products, it is superfluous to speak. Nor need more than mention be made of the scientific quarterly

periodical, "Annals of the Royal Botanic Gardens," for which Dr. Willis is responsible.

Dutch Encouragement of Agriculture.

In connection with the promotion of various branches of agriculture and of agricultural improvements, they had something to learn from their predecessors the Dutch, for he found from a Paper in one of their Journals that certain at least of the Dutch Governors and their advisers were very liberal in recognizing good work among the native headmen. For instance, it is recorded in the Minutes of the Dutch Council for 4th October, 1667 :— "Amongst other things that came before the Council on this day was the subject of agriculture in the Galle District, and it was resolved to reward those who were chief in promoting the same in the following manner :—

To the Commander, a silver jug weighing 200 Rds.
To the Dissawe, a silver gorget and tray weighing 35 Rds.
To his Assistant, 150 Rds. in cash.
To Lieut. Hans Jacob Boeff, 100 Rds. in cash.
To the Native Chiefs, 150 Rds. in cash."

Seed Testing.

In agriculture and planting, if I ventured to make a suggestion as to work to be done, it would be in reference to the "Testing of Seeds." This is a very important matter for the planter and farmer. In the United States and Australian Colonies much has been done to establish "Seed Control and Testing Stations," and there are useful little manuals published there, which might well be consulted by the rubber and other planters of Ceylon.

Medical, Engineering, Social Lectures, &c.

It may be judged that with all the different periodicals and scientific journals, departments, and associations to which I have referred, the scope of our Society (originally standing almost quite alone in the virgin field of arts, literature, and science in Ceylon) has been necessarily narrowed very considerably. And, indeed, there are several further societies and publications devoted to special branches of study in Ceylon which may as well be included in our list. There is the British Medical Association (Ceylon Branch), one of the most active and useful of Colonial branches as we learned the other day on the best authority, before which was read His Excellency Sir Henry Blake's Paper on "Ancient Theories of Casuation of Fever by Mosquitoes," a subject first of all introduced to public notice by His Excellency at our last anniversary gathering, and which has since attracted much attention in Europe and India, the latest reference being in a Paper by Professor J. Jolly, dated Wurzburg, 21st November, 1905, which appears in the Journal of the Royal Asiatic Society of Great

Britain and Ireland for January last.* Then there has recently been started a "Social Reform Society," with a Quarterly Journal; and, again, we have an Engineering Association of Ceylon just started, for which a career of usefulness may well be anticipated. Its "transactions" from time to time with plans and designs are sure to be of practical value. In respect of electrical developments alone there is great scope in Ceylon with so much water power running—may we say to waste—in our hill and even low-country. "Hitch your wagon to a star" said the American philosopher Emerson, and some approach may be said to have been made of late towards putting that counsel into practice. It has been well said that "our railway trains are dragged by the sunbeams that were bottled in the coal measureless ages ago." Now our high roads are occupied by bicycles, cars, and wagons propelled by the same force. We have electric tramways and electric lighting, although our electricity, like steam, is as yet in Ceylon almost entirely the product of coal. It is for our engineers to show what can be done through the

* SUSRUTA ON MOSQUITOES.

His Excellency Sir Henry A. Blake, Governor of Ceylon, having most kindly favoured me with a copy of his Paper on "Ancient Theories of Causation of Fever by Mosquitoes" [read before the Ceylon Branch of the British Medical Association on the 15th April, 1905]. I have once more examined all the principal medical Sanskrit texts likely to throw light on this point. The two texts of Susruta, on which the five distinguished Ceylon scholars referred to by Sir Henry Blake have rested their opinion that the medical writers of ancient India were acquainted with the connection existing between malaria and mosquitoes, were also quoted in my previous communication to this Journal (July, 1905), which was written about the same time as Sir H. Blake's Paper. Now it is quite true that the two texts, the only ones in Susruta which bear on the point, may convey the impression that he was actually aware of the fatal consequences attending the bites of certain mosquitoes, of the kind called *Paravatiya* (mountainous), which are, he says, as dangerous as "life-taking" or destructive insects. The "life-taking" insects, according to Susruta, are of twelve kinds, *Tunginasa*, &c. (not identified), and they cause the person bitten to undergo the same (seven consecutive stages of) symptoms as in the case of snake-bites, as well as the painful sensations (of pricking pain, heat, itching, and so on, Comm.) and dangerous diseases, the bite, as if burnt with caustic or fire, being red, yellow, white, or brown. The further symptoms which are mentioned in the following verses, such as fever, pain in the limbs, &c., are, however, common to all the four principal kinds of insect bites: they are not meant to be specially characteristic of the bites of "life-taking" insects. [This does not come out in the English translation proposed by the five Sanskrit scholars. It appears from the Sanskrit Commentary of Dallana.] Nor is the fever (*jvara*) of which Susruta speaks in this place likely to be true malarial fever. The term rather denotes the wound fever, which is constantly mentioned by Susruta as arising from the bites of insects, such as *Visvambharas* and *Kandumakas* [Kalpasth (viii., 15), of various poisonous spiders (viii., 51-54), of scorpions (viii., 35), of certain serpents (iv., 24), of rats

agency of our waterfalls and rivers. Meantime a new era for our roads has set in with the development of motor cars and cycles.

Before closing the record as to new intellectual developments in the Island, mention may be made of several series of public and popular lectures organized in connection with different institutions or through private enterprises in many of our towns. Foremost among these were the Colombo Pettah Library series, and also the popular series arranged in Kandy by Miss Gibbon. Other series are found in Colombo, Kurunegala, Galle, and sometimes Jaffna, in connection with Guilds, Young Men's Associations, &c., and very lately the accomplished Registrar-General made a new departure in the direction of popular lectures, inaugurating the same in a highly interesting historical sketch, in introducing which, however, he made one rather rash statement, which it is my duty as your President to notice and refute. He spoke of your Society as "almost dying of starvation" for want of Papers. I think before I am done, you all (including our worthy friend

or mice (vi., 11, 16), or from the wound caused by a poisoned arrow (v., 24)].

If the chief causes of malarial fever are "impure air and water and the existence of mosquitoes, according to ancient authorities on Ayurvedic medicine," we should be led to expect some statements to that effect in Susruta's chapter on fever, the king of diseases (*roganikarat*), where he goes very thoroughly into the causes of fever, such as derangement of the humours by some disturbing cause, as fighting with a strong man, anger, or sleeping in the daytime, by improper application of medicines, external injuries caused by a weapon or other instrument, by some disease, by fatigue or exhaustion, by indigestion, by poison, &c. Poison (*visam*) is the only term in this list which could be supposed to have any reference to mosquito bites; but the symptoms attributed to the fever caused by poison, such as diarrhoea, prove that vegetable poison must be meant, and this is expressly stated in a Sanskrit Commentary. Susruta does not refer to mosquito bites anywhere else than in the book on Poisons (*Kalpasthanam*), where he notices them very briefly, together with the stings of other insects. Poisonous spiders, e.g., are far more copiously discussed by Susruta than mosquitoes, and he attributes to them the causation of dangerous diseases, as well as of fever and other complications. Susruta's general notions of the nature of poisonous substances, including the nails and teeth of cats, dogs, monkeys, alligators, &c., are very crude, and his statements regarding animal poison in particular seem to be based, in a great measure, on an observation of the effects of snake-bites. Thus, he supposes insects (*kita*) and scorpions to be generated in the putrid carcases, excrements, and eggs of snakes; and he places the bites of dangerous animals of this kind on a par with snake-bites as to their consequences and as to their medical treatment. It does not seem advisable, therefore, to compare Susruta's remark on the fatal nature of the bites of a certain Masaka's occurring in mountainous regions with modern theories of the origin of malaria, especially as Masaka is a very wide term, which may include any fly or insect that bites, besides ordinary mosquitoes, as in a well-known text of the Code of Manu (I., 40) on the creation of "all stinging and biting insects" (*sarvam ca damsamasakam*). The other Sanskrit authorities agree with Susruta.

himself) will realize that the case is quite otherwise. No one at least can say that the Ceylon Branch of the Royal Asiatic Society has not done good work and deserved well of the intelligent public of Ceylon in the past. How it has forged ahead may be judged from the fact of its commencing sixty-one years ago with a roll of thirty-four Members, not one of whom was a Ceylonese; while now our roll includes 203 Members, of whom no fewer than 97 are Ceylonese gentlemen, many of whom pre-eminently contribute to our Journals and discussions. As our Bishop President well said in his Jubilee historical sketch: "Instead of being a Society of European Christian visitors, interested as visitors in an Island to which they did not belong, we are now a Society of studious people separated by many distinctions of race and association, but all keenly interested in whatever belongs to Ceylon, whether bound to it as the scene of our duty or by the still stronger ties of fatherland." In this connection, too, we may dwell with some complacency on the enterprise of "sons of the soil" in going forth from Ceylon to take up work, and in many cases to fill important posts in other parts of the world, not only in the United Kingdom, but in America, South Africa, and Australia. To India, Burma, and the Straits, Ceylon has given many of her educated sons as teachers and preachers, as well as medical men, surveyors, engineers, in the clerical and other services. Ceylonese merchants and men of business are found in the United States and the Continent of Europe, and I have heard of a Ceylonese family supplying an electrical engineer of repute to a Midland company in England, a doctor in good practice in South Africa, a man of business in South America, and a teacher in a Metropolitan Public School. A Sinhalese gentleman once closely associated with this Society, Mr. D. M. de Zilva Wickremasinghe, besides being Epigraphist to the Ceylon Government, is also Librarian and Assistant Keeper of the Indian Institute, Oxford.

Our Prospects and Papers before the Society.

Among the promised Papers—to be read it is expected at an early date—is one now in course of preparation by Dr. Donald Ferguson on "The First Discovery of Ceylon by the Portuguese," with several illustrations (executed in England), which have been sanctioned by your Council. The peculiar appropriateness of this Paper will be found in the fact that on 6th April next will be the 400th anniversary of the first landing of the Portuguese at Colombo. Another valuable contribution will be "Some Survivals in Kandyan Art," by Dr. A. K. Coomaraswamy, also with illustrations. A third Paper will be on "Certain Ruins in the Ruhunaratana," by Mr. Arthur Jayawardana, retired Atapattu Mudaliyar of Galle. There are also some proposed contributions by Mr. T. B. Pohath Kehelpannala, which have to be considered by your Council.

Then I hope to complete the second and perhaps the more practically interesting and useful part of my Paper on the extension of "Coconut Planting"—that is, in Dutch and British times.

from about 1660 A.D. to 1906—before the end of this year. Apart from the prospects of some substantial Papers thus held out to Members (and others in the general public who ought to take a greater interest in our Society by becoming Members), the Council has accepted Mr. Donald Ferguson's offer to translate the parts referring to Ceylon in the works of John de Barros, the Historian of Portuguese India, and his successor Diego de Couto. The work of these gentlemen was published at Lisbon in 1778-88 in twenty-four volumes, so that the selector and translator has no ordinary task before him.

The Veddás.

There is the prospect, too, of some anthropological work of much interest to the Society being undertaken in the Island during the present year. In our first President's Opening Address sixty-one years ago, he asked the question: "Who are the Veddás, and whence came they?" This has been answered from time to time in the Journals of this Society and in other publications by able Members of the Ceylon Civil Service and Scientists like the brothers Sarasin, Virchow, and others. But I do not think that any one will say finality has been reached. Professor Virchow only dealt with second-hand material, never having visited Ceylon, and he was most earnest in closing his Paper in 1885 as to the duty of this Society and all who could help in Ceylon. His words given in our Journal are: "May the zeal of the observer know no flagging, that, before the utter extinction of this already much-depleted race, the language and customs, the physical and mental constitution of the Veddás. may in all particulars be firmly established."

And in respect of one of his points, he remarks: "New researches and further material would seem to be required before a definite conclusion can be arrived at."

The Bishop President, in his Address that same year, emphasized the need of further observation, thinking that some of Professor Virchow's conclusions might stand in need of correction. Other investigators who have done work personally in Ceylon have urged on this Society, the Museum Officers, and other Powers—that be to do all in their power to obtain, before it is too late, "information which in a few years will be unobtainable." One observer concluded that within the present century it might almost be impossible to find a real Veddá in Ceylon. It will be remembered, too, that Sir E. F. im Thurn, in his closing Address in September, 1904, remarked: "Far too little has yet been achieved in the direction of Anthropology, and the cave-dwelling Veddás might well receive more attention." That being the case, it may be asked, what has been done since 1885-86, towards what Professor Virchow and others urged on us? I fear little or nothing. Under these circumstances I am sure you will learn with much interest the contents of a letter I received by a recent mail from Dr. Haddon, F.R.S., of Cambridge University, one of the leading anthropologists of the day. He writes: "We have recently appointed

Mr. A. R. Brown, B.A., Trinity College. as the first Anthony Wilkin Student in Ethnology, and he proposes to study the Psychology and Sociology of the Veddás. Mr. Brown is thoroughly trained in all methods of experimental psychology suited for field work, and no one who has not had such a training can hope to do that kind of investigation with sufficient accuracy to satisfy the requirements of students at home. Further. Mr. Brown has learnt from Dr. Rivers and myself methods for conducting investigations into the sociology of primitive peoples. So much of the work done by those who have not learnt the proper methods is unsatisfactory and incomplete, and ought to be done over again. What Science now demands is accurate, detailed, and exhaustive work ; all this requires training, and cannot be picked up by any one in the field. In addition, Mr. Brown has studied physical anthropology and other subjects that will be of use to him. I write all this to satisfy our Ceylon friends that we are sending out a thoroughly competent person for this class of research. Further, Mr. Brown is a very cultured man, for not only has he taken a first class in the Moral Science Tripos, but he has a wide knowledge of literature. He is a young man with a brilliant future before him, and I sincerely trust he will be afforded every facility that can be granted to him. for I feel certain he is worth it. Any further information you desire I shall be most happy to supply. He hopes to start in about ten weeks' time." Dr. Haddon wrote about the middle of February, so that Mr. Brown, if he does come, should soon be here. Unfortunately, the question of "ways and means" may just possibly prove a hindrance at the last moment, as his travelling scholarship is not a rich one ; but I trust any difficulty may be got over, and I feel sure anything that His Excellency the Governor and the officers of Government of all ranks, the Members of this Society, and others interested in the Veddás can do to promote Mr. Brown's investigation, or to render him needful assistance, will be readily accorded.*

Work to be done ; Suggestions to Members.

Our Vice-President, Mr. J. P. Lewis, has been calling public attention through the Press to the need of a compilation for Ceylon similar to that published by the Indian Government on "Indian Monumental Inscriptions"—Vol. III., being "List of Inscriptions on Tombs or Monuments in Madras," by Julian James Cotton of the Civil Service, having appeared from the Government Press a few months ago. If Members and others in different parts of the Island assisted Mr. Lewis in getting the inscriptions copied, I have no doubt His Excellency the Governor would aid us in the printing and publication.

So long ago as 1884 the then President (afterwards Sir John F. Dickson) suggested that an interesting Paper, read by Mr. Ievers,

* Unfortunately the Ceylon Government did not see its way to give encouragement or aid for Mr. Brown, and so he went on to the Andamans.—J. F.

might be developed by some Member of the Society into a continuous account of the history of the *Tooth-relic* since its arrival in Ceylon in 310 A.D. This remains to be done.

Then, again, the late learned Mr. James Alwis's unfinished work has never been taken up, and we have yet to see an adequate and complete history of Sinhalese literature.

In this connection it may be remarked that the Committee on Oriental Studies are anxious to have a text book on the Philology of the Sinhalese language and another on the Archæology of Ceylon.

I know how big a subject and large an undertaking are opened up when I ask what has become of the "Sinhalese Glossary Committee," for which our Bishop President did so much. It would be well if we could persuade his brother, and successor in the Diocese, to join our Society and to take a part (for which, as an accomplished Sinhalese scholar, he is so well fitted) in a new "Glossary Committee," towards the fulfilment of the adequate Sinhalese Dictionary, which all our scholars desiderate.

The translation for our transactions of that part of Valentyn which treats of Ceylon has yet to be accomplished; perhaps it may be done after Mr. Donald Ferguson has finished his present translations for our Society.

A very minor but interesting question to be answered is, By which Sinhalese King was the canal between the Kelani river and Negombo lake—alluded to by Jesuit priests in 1613—constructed? Mr. Donald Ferguson says he cannot tell. Is there any reference in the old books to help us? The Government Archivist tells me there were six principal kings between 1500 and 1600 A.D. (the period when it must have been cut), apart from inferior kings. He thinks Don Juan Dharmapala (1542–1584) to be the most likely to have made the canal.

Some day we may hope to see a new edition revised, corrected, and brought up to date of the most charming and instructive book ever written about Ceylon, namely, the two volumes by Sir J. Emerson Tennent, published over forty years ago. The editor and reviser will find much information to help him in our Journals, notably in the Paper demonstrating that the Chinese invaders fought the Sinhalese King at Kotté and not at Gampola; that Sirivardanapura was not the modern Kandy, but a town six miles from Dambadeniya, on the road between Kurunégala and Negombo; and that the Portuguese first appeared at Colombo rather than Galle.

A new and judiciously edited reprint of Robt. Knox's ever-interesting book, embodying all the errata which he himself supplied, and giving notes identifying the places mentioned as far as possible, would be a useful work. Mr. Donald Ferguson has collected a good deal more of information about Knox since his pamphlet on the subject appeared.

An up-to-date "Gazetteer of Ceylon," utilizing so far Simon Casie Chitty's work of seventy years ago, and still more Sir Archibald Lawrie's admirable "Kandyan Gazetteer," would be useful.

It will shortly be desirable to have the very excellent index, so ably compiled as a labour of love by Mr. J. F. W. Gore for Journals I. to LXI. (that is, up to 1890), of our Journals and Proceedings continued to the present time.

I am quite of the opinion that, so far as funds permit, the Society ought to go on reprinting past Journals that may have got out of print. An accession to our membership would enable this the more readily to be done. Some years ago, indeed, it was proposed to ask the Bengal Royal Asiatic Society for permission to reprint as part of our transactions the valuable Papers contributed to that Society's Journal by the late George Turnour. But I think we ought first to be sure of making available to new Members or other purchasers all the past Journals of our own Society.

Our field of work may be narrowed by the multiplication of so many different agencies—private as well as official—which take up the different branches of science and study. But there is plenty left for the Members to do if they only follow, in all reverence and humility, the pursuit of truth and the elucidation of what remains within the full scope of the Royal Asiatic Society of Ceylon.

Portuguese, Dutch, and early British Maps.

A series of copies of Dutch maps of the whole or parts of the Island and plans of the towns have lately been procured by the Ceylon Government from The Hague, and are now, some of them, in charge of the Surveyor-General and some of the Government Archivist. I have been favoured with lists of the same, which it is well to put on record :—

List of Dutch Maps in Surveyor-General's Office.

927	..	Map of Ceylon (one section only).
929	..	Do. Giant's Tank.
930	..	Do. do.
931	..	Do. do.
932	..	Do. do.
933	..	Do. do.
934	..	Do. do.
935	..	Do. Kalutara District.
936	..	Do. Salpiti Korale.
937	..	Do. Alutkuru Korale.
938	..	Do. Panadure.
939	..	Do. Trincomalee District.
1,014	..	Do. Trincomalee.
1,071	:	Do. Galle.

Besides the above, there are in office one ferro-gallic copy of a map of Karachchi, one folded map of Jaffna, and one folded map of the Island.

List of Maps with the Government Archivist.

941	..	Map of old Colombo.
942	..	Do. Siege of Colombo.
944	..	Do. Colombo.
946	..	Do. do.
948	..	Do. do.
950	..	Do. do.
952	..	Do. Fort of Colombo.
953	..	Do. Environs of Colombo.
954	..	Do. Environs of Fort of Colombo.

List of Maps and Plans with the Government Archivist.

- (1) Plan of Colombo, *circa* 1656.
- (2) Plan and Chart of the Environs of Colombo, *circa* 1750.
- (3) Chart of the Fortress of Colombo, of the Pettah, showing the situation of the Lake and the surrounding land. Prepared by Captain Foenander in 1785.
- (4) Portuguese Map of Colombo.
- (5) Plan of the Castle of Colombo and the Pettah, 1681.
- (6) Plan of the Castle of Colombo, 1697.
- (7) Map of Colombo and its Environs, without date.
- (8) Map of the Jaffna Peninsula. 1720.

Maps.

I have also been favoured from the Surveyor-General's Office with the loan for this evening of a map prepared in 1719 for the then Dutch Governor, and which deals mainly with districts in the south-west maritime coast, coloured fully where occupied by the Dutch, and with a red line to indicate the limit of the territory taken from the Kandyan ruler and more or less within Dutch influence. The map refers mainly to cinnamon cultivation, and the divisions growing the finest are specially shown, while little circles in red indicate the villages occupied by the Chaliyas when engaged in peeling. Dutch maps of Ceylon are not uncommon; but there is scarcely anything of this kind appertaining to Portuguese times. The Government Archivist reports: "I have among the maps in my possession an old rudely drawn one of Colombo with the names in Portuguese. This I believe to be a map of the Portuguese times. I have not seen any other of the period, although I have an idea the Museum has some very old maps."

This plan of Colombo in Portuguese times has been lent for this evening, and is now before you. Though, undoubtedly, a Portuguese plan, many Dutch words are inserted in it. It is very interesting, as showing how far the fortifications of Colombo at the time extended,—quite out to Kayman's Gate and embracing all the Pettah, which, indeed, to this day is known as the old city. It is also interesting for the number of churches shown (one on

the site of the present Pettah Burial Ground), and altogether for its quaint look. Had there been time this map ought to have been engraved for the forthcoming Paper on the Portuguese in Ceylon. The Honorary Secretary, Mr. Joseph, exhibits from his office an old Portuguese sketch (doubtless enlarged) of the Colombo Inner Harbour, Customs House, and other buildings, which may have been taken from the more detailed map or perhaps a little later.

From Mr. D. W. Ferguson I have got the loan, on purpose to exhibit here, of the only copy he has heard of being available, of the illustrated map, prepared by Mr. Charles Wynne Payne, to accompany a book on "Ceylon, its Products, and its Capabilities, &c.," published in 1854 in England. The illustrations show types of different sections of the Sinhalese, Tamil, and Moormen, with some attractive views of scenery, of the elephant, coffee in fruit and flower, &c. This map, published fifty years ago, is specially interesting because of the author having, at so early a date, boldly drawn the lines of railway which he thought ought to be constructed in order duly to develop the Island. Beginning at Galle he ran a coast line, not only to Colombo, but on to Puttalam and Mannar and over the Mannar Island facing Adam's Bridge, ready for the connection with India. Then, this coast line was continued to Jaffna; and was then led diagonally across country to Trincomalee. Thence, the line connected across country with Kandy and ran on to Colombo. Another line from Kandy ran direct to Batticaloa, ignoring intervening mountain ranges! It will be observed that Mr. Payne never anticipated the necessity which has carried our railway system up to 6,200 feet and down into the heart of the Uva Principality—the most wonderful mountain railway of 160 miles from Colombo to Bandarawela, in some respects, that can be found on the surface of the globe.

8. The Hon. Mr. John Ferguson, C.M.G., President, then read the following Paper.

**THE COCONUT PALM IN CEYLON :
BEGINNING, RISE, AND PROGRESS OF ITS CULTIVATION.**

**No. 1.—From earliest Times to 1660 A.D. or the close of the
Portuguese Occupation of the Maritime Provinces.**

By the Hon. Mr. JOHN FERGUSON, C.M.G.

THE Coconut Palm has been the subject of several Papers included in the Journals of this Society. In the very first number, published in 1845, there is a Paper "On the Ravages of the Kuruminiya or Coconut Beetle," by J. Capper. The same beetle is referred to by Edgar Layard in the fourth issue of the Journal a few years after, in the course of a sketch on the Natural History of Ceylon. Again in Journal No. 5 the brothers J. G. and W. S. Taylor of Batticaloa contributed an interesting Paper "On the Manufacture of Sugar from the Juice or Sap of the Coconut Tree." In 1853 Mr. A. O. Brodie of the Civil Service contributed a statistical account of the Districts of Chilaw and Puttalam, in which reference is made to topes of coconuts along the sea coast, the total of the palms in the two districts altogether being then estimated at 950,000, covering about 12,000 acres. Then in 1882 we had brief references to the coconut palm from Ibn Batúta's account of his visit (in 1343) to the Maldives in the Paper translated for us by Mr. Albert Gray. And, finally, there is a reference to this palm in Johann Jacob Saar's Account of Ceylon in 1647-1657, translated for the Society by Mr. Freudenberg, Vice-President, in 1885. The traveller there speaks of "the many and beautiful trees called coconut trees" in the Island, and details some of the ways in which they are utilized ; while he also mentions

that the numerous monkeys "do much damage to the trees." [Mr. Geo. Wall in his Papers on an Introduction to a History of the Industries of Ceylon, vol. X., No. 37, 1888, makes no reference to the coconut palm.]

But nowhere throughout the Proceedings and Journals of this Society extending over a period of sixty years is there information afforded on a subject which, we might consider, should be of special interest to its members, namely, the first appearance and gradual spread, through cultivation, of the coconut palm in Ceylon. Unlike cinnamon, which is found growing wild as a tree in the jungles of the interior, the coconut palm (*Cocos* nucifera*, the Pol-gas or Pol-gaha of the Siphalese) is not indigenous to the Island. All that the late Dr. Thwaites, F.R.S., in his "Enumeratio Plantarum Zeylanicæ" says of this palm under "Habitat" is :

* Dr. Trimen mentions that "Cocos" is from the Portuguese name *Coco* or *Coquo*, given to the fruit from a fancied resemblance to a monkey's face. Marshall quotes Mr. Booth's Analytical Dictionary : "The three holes at the end of the shell give it the appearance of the head of a monkey." But he himself considers *Coco* is derived from the Greek word *Kocos*, a seed, nut, or shell. Baldaeus, in his account of the idolatry of the East Indian Pagans, mentions how *Ixora* [Īsvara] turned the head of a man (beheaded by her) into a *coco* tree, "whence it is that the Indians say that the print of a man's face was fixed in the coconut." Early European writers up to the 10th century speak of it as "the nut of India," a term used by Robert Knox in the 17th century. Mudaliyār A. Mendis Gupāsēkara informs me that the Siphalese word "pol" is considered a pure original Siphalese word. He also writes : "Maharuk or mārūk, another ancient Siphalese word for coconut, literally means the great or chief tree, and indicates that it must have been in the Island in great abundance from a very ancient date."

[The derivation of the name of the nut from Portuguese *coco*, "bugaloo," rests on the statement of Barros (Dec. III. III. vii.) and Garcia da Orta (*Col.* 16), whose books were both published in 1563. Barbosa (1516) says : "We [Portuguese] call these fruits *cocquos*." But the anonymous writer of the voyage of Vasco da Gama (1498-9) speaks of *coquos* as if the name were the ordinary one, though the Portuguese had never seen the palm or fruit before this voyage (see Count Ficalho's remarks in his edition of Garcia da Orta's *Colloquios*, i. 247-50). See also *Hobson-Jobson*, s. v.

The word *pol* is derived by Professor W. Geiger (*Etym. des Singh.*) from Sanskrit *puṣa*, "funnel-shaped, hollow space ;" Pāli *puṣa*, *puṭi*, "vessel ;" and he adds that in Sanskrit *puṣodaka* is coconut, lit. "having water in its hollow (fruit)."—D. W. F.]

“Commonly cultivated throughout the warmer parts of the Island.” The late Dr. Trimen, F.R.S., in his “Handbook to the Flora of Ceylon,” is more explicit, his statement being : “Universally cultivated throughout the low-country, especially near or on the sea coast ; but not wild.” A very experienced Ceylon coconut (as well as cinnamon, coffee, and tea) planter—Mr. W. B. Lamont, who first came to the Island in 1841, and still survives near Ratnapura—gives the following reasons, as the results of his observations in different districts of the Island, why the coconut cannot be regarded as indigenous :—

“We do not find in the coconut tree, as it appears in Ceylon, the characteristics of an indigenous plant ; we do not find it growing to maturity, and producing its seeds in the midst of the other natural growth : but wherever Nature resumes her sway and maintains it for a few years on land in which this palm grows, we see it pine, cease to bear fruit, and ultimately die off ; the neighbourhood and agency of man seem necessary not only to its propagation and well-being, but to its existence. It is only found as a cultivated plant ; starved and neglected indeed it may be, but never totally abandoned to Nature for a long period of years.”

Again, as Tennent so well puts it :—

“The presence of the coconut palm throughout Ceylon is always indicative of the vicinity of man, and at a distance from the shore it appears in those places only where it has been planted by his care. The Singhalese believe that the coconut will not flourish ‘unless you walk under it and talk under it’ ; but its proximity to human habitations is possibly explained by the consideration that if exposed in the forests it would be liable, when young, to be forced down by the elephants, who delight in its delicate young leaves.

“In the deepest jungle the sight of a single coconut towering above the other foliage is, in Ceylon, a never-failing landmark to intimate to a traveller his approach to a village. The natives have a superstition that the coconut will not grow out of sound of the human voice, and would

die if the village, where it had previously thriven, became deserted.”—*Tennent, vol. I., p. 119, fifth edition.*

Then again Sir Samuel Baker, after eight years of wanderings in Ceylon jungles, remarks :—

“Groves of coconut trees towering over the thorny jungles often become monuments sacred to the memory of an exterminated village, and wild elephants generally overturn (ownerless) coconut palms, luxuriating in the succulent tops.” *

De Candolle—I suppose, the greatest authority on the subject—places the original habitat of the coconut palm in the Eastern Archipelago, somewhere in the neighbourhood

* On the other hand, Simon Casie Chitty (in his “Ceylon Gazetteer,” 1833) has no doubt about the coconut palm being indigenous. Here is how he introduces the subject :—

“Among the trees indigenous to the Island (if we except cinnamon, which furnishes the greatest item of its commerce) the claims of the coconut tree appear to predominate. Such is the benefit which this tree confers on the natives, that it is celebrated in song by the ancient bards; and one of them [whether Sîghalese or Tamil is not mentioned] thus elegantly expresses the quality of its fruit in a Sanskrit stanza :—

Usaggra uásé nacha pakshí rájá [1]

Jalanta tárí nagato na méghá

Subbrahma chári nacha chandro máya

Trínétri dhári nacha Iswaránám. [2]

It resides on high—yet it is not the king of the birds :

It yields water—yet it is not the raining cloud ;

It is white—yet it is not the moon ;

It has three eyes—yet it is not Iswara.

[1] The Garuda, a bird sacred to Vishnu, and consequently worshipped by his votaries. It is the Pondicheri eagle of Brisson, and its origin and history form the subject of one of the eighteen Puránas.

[2] Iswara is one of the mystical names of Sîva, who is represented with three eyes.”

Mndaliyár Guṇagékara reminds us that the coconut is mentioned in the great Indian epic *Mahábhárata* ; and the Sanscrit *dákshinātya*—one of the names of the palm—literally means “native of the south.” The “*Materia Medica*” of the Hindus compiled from Sanscrit medical works makes mention of various medicinal properties and uses of the coconut. The Mndaliyár adds that the name of the coconut tree in Tamil (*tennei*) seems to mean the southern tree, this tree having been brought, according to tradition, from Ceylon. So also says Dr. Caldwell in his grammar the Dravidian languages ; but this is quite consistent with the view that the coconut originally came to Ceylon from the farther south-east.

of Sumatra and Java, and surmises that nuts floated thence both east and west—eastwards to the islands of the Pacific and the coast of Central America, and westward to Ceylon and India and the east coast of Africa. He considers that the introduction of the coconut into Ceylon, India, and China does not date back beyond 3,000 years; but that it floated by sea to the coasts of America and Africa at a more remote epoch. The native Singhalese tradition that locates the earliest specimen or grove of this palm in the neighbourhood of Weligama, on our southern coast, is in strict accordance with what might be expected under De Candolle's theory. [A glance at the map of Asia would seem to show how readily coconuts could float from Sumatra to Ceylon. After the eruption of the volcano Krakatao in Java, in August, 1883, the south-east shores of Ceylon were invaded by tidal waves carrying ashes and other *débris*.] The tradition is that a king of Ceylon was a leper, or afflicted with some skin disease, and that he (Kusta Rāja) was cured by sea-bathing and the milk of the coconut, or the use of its expressed oil. The legend goes on to say that the king found no people where he found the coconut palm of his dream, as if to testify to its introduction through nuts carried across the sea from Sumatra and taking root on the sea coast near Weligama.*

* The affinity of a great majority of the genera (represented on our Ceylon south-west coast) is distinctly Malayan as opposed to Indian.—*Trimen*. Curiously enough to *Trimen's* remark "Coconut cultivated throughout the tropics, the origin is not known," Sir Joseph Hooker adds: "Indigenous according to Kunz in the Cocos and Andaman Islands." But Dr. Henry Marshall, Deputy Inspector-General of Army Hospitals, writing in 1836, says: "It is remarkable that the coconut tree has never been introduced into the *Andaman Islands*, although it is very extensively cultivated in the Nicobar Islands, which are within 30 leagues of the little Andamans." Evidence, I believe, has been afforded within historic times of the coconut taking root of itself after floating across the sea; but a curious case of prematurely jumping to a conclusion occurred in 1890 to a distinguished botanist, who wrote to the London weekly, *Nature* :—

Self-Colonization of the Coconut Palm.

The question whether the coconut palm is capable of establishing itself on oceanic islands, or other shores for the matter of that, from seed cast

The fullest version I have seen of the "Traditional account of the original discovery of the coconut tree, by an ancient Sinhalese Prince of the Interior of the Island of Ceylon" is

ashore, was long doubted : and if the recent evidence collected by Professor Moseley, Mr. H. O. Forbes, and Dr. Guppy, together with the general distribution of the palm, be not sufficient to convince the most sceptical person on this point, there is now absolutely incontrovertible evidence that it is capable of doing so. even under apparently very unfavourable conditions. In the current volume of *Nature* (page 276) Capt. Wharton describes the newly-raised Falcon Island in the Pacific ; and in the last part of the Proceedings of the Royal Geographical Society Mr. J. J. Lister gives an account of the natural history of the island. From this interesting contribution to the sources of the insular floras we learn that he found two young coconut palms, not in a very flourishing condition, it is true : but they were there, and had evidently obtained a footing unaided by man. There were also a grass, a leguminous plant, and a young candle-nut (Aleurites) on this new volcanic island—a very good start under the circumstances, and suggestive of what might happen in the course of centuries.—*W. Botting Hemsley (Nature, April 5, 1890).*

This was answered in the following issue:—With reference to Mr. Hemsley's note on this subject to *Nature* (page 537), I regret to have to inform him that the two young palms found on Falcon Island were placed there by a Tongan Chief of Namuka, who in 1887 had the curiosity to visit the newly-born island, and took some coconuts with him. This information I received from Commander Oldham, who had been much interested at finding these sprouting nuts at some 12 feet above sea-level and well in from the shore of the Island, but who found out the unexpected facts in time to save me from making a speculation somewhat similar to Mr. Hemsley's.—*W. J. L. Wharton (Nature, April 24, 1890).*

A writer in the *Journal of the Indian Archipelago* for 1850 observes that the tendency of the coco palm to bend above the sea, causing its fruit to drop into the water, appears to account for its extension to the numerous islands and atolls to which the nut is floated by the winds and tide. The little island of Pulo Merga off Sumatra, not a mile round and so low that the tide flows over it, is of a sandy soil and full of coconut trees, although at every spring tide the salt water goes clear over the island—so fond is the palm of the sea and salt.

"Essentially littoral," says Dr. Hartwig, in his *Tropical World*, "this noble palm requires an atmosphere damp with the spray and moisture of the sea to acquire its full stateliness and growth ; and, while along the bleak shores of the northern ocean the trees are generally bent landward by the rough sea breeze, and send forth no branches to face its violence, the coco, on the contrary, loves to bend over the rolling surf and to drop its fruits into the tidal wave. Wafted by the winds and currents over the sea, the nuts float along without losing their germinating power, like other seeds which migrate through the air ; and thus, during the

in the *Ceylon Miscellany* for July, 1842. A much more concise statement (which I give as a note) was sent to me some years ago by the late Mr. W. N. Rájapakse, Proctor of the Supreme Court.*

lapse of centuries, the coco palm has spread its wide domain from coast to coast throughout the whole extent of the tropical zone. It waves its graceful fronds over the emerald isles of the Pacific, fringes the West Indian shores, and from the Philippines to Madagascar crowns the atolls or girds the sea-border of the Indian Ocean. But nowhere is it met with in such abundance as on the coast of Ceylon, where for miles and miles one continuous grove of palms, pre-eminent for beauty, encircles the 'Eden of the Eastern Wave.' Multiplied by plantations and fostered with assiduous care, the total number in the Island cannot be less than twenty millions of full-grown trees [the estimate of 50 years ago.—J. F.]; and such is its luxuriance in those favoured districts, where it meets with a rare combination of every advantage essential to its growth—a sandy and pervious soil, a free and genial air, unobstructed solar heat, and abundance of water—that, when in full bearing, it will annually yield as much as a ton's weight of nuts—an example of fruitfulness almost unrivalled even in the torrid zone."

* THE TRADITION RESPECTING THE INTRODUCTION OF THE
COCONUT INTO CEYLON.

(By the late Mr. W. N. Rájapakse, Proctor, Supreme Court.)

1. Kusta Rája (so called because he was afflicted with a cutaneous distemper) is the first person whose name is associated with coconut cultivation. He was a provincial king or prince in the midland parts of the Island. His disease having baffled the skill of his physicians, he was going about seeking a cure. On the beach of the sea coast somewhere near Weligama he found a coconut tree growing there and bearing fruit. The tree is supposed to have grown from a nut washed on shore from some foreign land. He drank the water of the nut either out of curiosity or by advice, and probably repeating the dose he got cured. This induced him to make a plantation of coconuts in the vicinity of Weligama. The result having proved beneficial to man, his image cut out of the solid rock was placed by the people of the place to perpetuate his memory.

2. Kusta Rája is believed to have lived after the conquest of the Island by Wijaya, and there are reasons to suppose that the coconut was known in Ceylon in the time of our first king.

3. The worship of certain gods, devil-dancing, and *bali* or invocation of the flowers were observed in Ceylon in the time of Wijaya and before that, and in all these three things the coconut plays an important part. In worship of gods the oil of the nut is used for lighting the lamps, and it is preferred to all other oils, except scented oils. In devil-dancing

Curiously enough, the *Mahāwamsa* (the ancient Sinhalese history of Ceylon) does not contain nearly so many references to the coconut as it does to the palmyra palm, probably

and *bali* a coconut is placed at the feet of the patient, and the devil-dancer concludes the ceremony by imploring that the ailments of the patient may descend to the coconut.

4. The invocation consists of the repetition of a number of verses which are herewith enclosed. This poem was composed by Totagammuwe Sri Rāhula, the Shakespeare of Ceylon, who by the way was a contemporary of the Bard of Avon. though they lived in different countries and were unknown to each other. In the commencement the poem sets out that the coconut was imported into Ceylon to be placed at the feet of Wijaya on the occasion of a *bali*, intended perhaps to avert the evils of his ingratitude to Kuvēni and murder of her people. According to this poem the home of the coconut was beyond seven seas. Then it goes on to describe the different kinds: the king-coconut, the scoert-husked* coconut, the diminutive coconut, and the *sembili* or the first-mentioned kind, being the one from which the other kinds sprang. Before this poem was composed in Sinhalese it is believed that the same existed in Sanskrit, like most of the *mantras* or charms used in devil-dancing, but it was rendered into Sinhalese and versified for facility of learning it by heart and to please the patient by its melody. This poem bears on it the impress of antiquity and is full of poetic genius and fire: no one now living can compose poetry like this. I think. This poem is repeated throughout Ceylon.

5. If this statement of importation of the coconut be true, this is a new and important fact, and Kusta Rāja must at once be deprived of the credit of being the first finder of the nut and the honour be given to whom it is due. In this connection it is interesting to be reminded that the coconut tree flourishes best in that part of the Island where Wijaya reigned.

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* "Scoert-husked coconut" puzzled me somewhat; but I am inclined to think "scoert" stands for the Dutch *zoet*, sweet. It is this description of coconut which I believe Mudaliyār Guṇasēkera translates *Narase* (see page 9). *Narase*, I know, is a kind of coconut with a sweetish husk which, when tender, is eaten with great relish by the villagers.—R. G. Anthonisz.

because the latter, flourishing in a drier region, was better known at that time in North Ceylon and in India. Tennent finds an explanation in the fact that the *Mahāvamsa* was

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are given in the H. of Dh. Vol. II where they are explained; āghārau (p. 1051 n. 2360), Ājyabhāga (p. 1059 n. 2371), Abhi-ghāraṇa (p. 528 n), Avadāna (528, 1061 n), Upastaraṇa (p. 1061 n), Pavitra (211 n., 1021 n), Paryagnikaraṇa (p. 1120 n), (Pranītā p. 1022-23), Pratyabhigāraṇa (p. 1053 n). The Āp. Dh. S. (I. 4. 12. 10) makes the interesting statement "religious rites were declared in the Brāhmaṇas, the texts of those rites have been lost, (but those texts) can be inferred from the actual performance (of the rites that are in vogue): 'brāhmaṇoktā vidhayas-teṣām utsannāh pāthāh prayogād-anumīyante'. This shows that an early writer like Āpastamba (who flourished some centuries before the Christian era) was aware that Brāhmaṇa works had once described many of the gr̥hya rites, but that in his day such Brāhmaṇa texts had been lost.

5. The Dharmasūtra of Gautama.

This has been printed several times (there is Dr. Stenzler's edition of 1876, the Calcutta edition of 1876, the Ānanadāśrama edition with the commentary of Haradatta, and the Mysore Government edition with the bhāṣya of Maskarin; it was translated by Bühler in S. B. E., Vol. II. with an introduction). The Ānanadāśrama edition of 1910 which is incorrect in a few places (e. g. 21. 7) has been used in this work. This dharmasūtra is, as we shall see, the oldest of those we have. The Gautamadharmasūtra was specially studied by followers of the Sāmaveda (see note 55 above). The commentary on the Caranavyūha tells us that Gautama was one of the nine sub-divisions of the Rāṇāyaniya school of the Sāmaveda. A teacher Gautama is mentioned frequently in the Lātyāyanaśrautasūtra (e. g. I. 3. 3 and I. 4. 17) and in the Drāhyāyanaśrauta (e. g. I. 4. 17, IX. 3. 15) of the Sāmaveda. The Gobhilagr̥hya (III. 10. 6) which belongs to the Sāmaveda cites Gautama as an authority. Therefore it is not improbable that a complete Gautamasūtra embodying Śrauta, Gr̥hya and Dharma doctrines once existed. There are other indications pointing to the close connection of the Gautamadharmasūtra with the Sāmaveda. Chapter 26 of the dharmasūtra about *Kṛcchra* penance is the same, almost word for word, as the Sāmavidhāna⁵⁹ Brāhmaṇa (I. 2, Burnell's ed.).

59 There are, however, considerable divergences; e. g. गौ. घ. सु. 26. 10-12

are 'आपो हि ष्ठेति तिसृभिः पवित्रवतीभिर्मोर्जयति हिरण्यवर्णाः शुचयः पावका इत्यष्टाभिः। अथोदकतर्पणम्। नमोहमाय &c. while the सामविधान is 'आपु .

Among the purificatory texts (21 in number) mentioned in Gau. Dh. S. (19. 12) there are nine that are Sāmāns. The mention of the five utterances (‘Vyāhrtis’) resembles the number in the Vyāhrtisāma⁶⁰ though the order is different. It is, however, to be noted that Gautama is a generic name. In the Kathopanishad, both Naciketas (II. 4. 15, II. 5. 6) and his father (I. 1. 10) are styled Gautama. In the Chāndogyaopaniṣad there is a teacher Hārīdrumata Gautama (IV. 4. 3).

Dr. Ram Gopal in his Ph. D. thesis ‘India of Vedic Kalpa-sūtras’ (1959) charges me (on p. 53) with being inconsistent as regards the Gautama-dharmasūtra. This book is probably his first serious work on ancient Sanskrit literature and society and I am afraid that he is more dogmatic in several conclusions of his than the facts warrant. About Gautama Dharmasūtra I made (in the first edition of the H. of Dh. Vol. I published so far back as 1930) two points viz. (1) that it was originally an independent work and not attached to any particular Vedic Śākhā; (2) that it was subsequently adopted by Sāmavedins as their Dharmasūtra probably because it contained a few indications of leanings towards the Sāmaveda. I pointed out some of those indications, but also showed that Gautama’s name was connected with the Kathas of the Kṛṣṇa Yajurveda also, as in the Kathopanishad both Naciketas and his father are referred to as Gautama and because the Tantravārtika (about 650-700 A. D.) asserted that Gaut. Dh. S. was accepted or adopted by the Sāmavedins as their Dharmasūtra. I could have added many other matters in support of my theory but thought that it was unnecessary to do so. The duty of all scholars when dealing with ancient works or matters more than a thousand years old is to marshal the necessary or available facts with honesty and, if they do not all point to the same conclusion, to declare, if possible, one’s

(Continued from last page)

हिष्ठीयाभिरथोदकतर्पणं नमोहमाय’ गौ. ध. सू. 26. 12 contains many additions. Wherever there is divergence, it is generally Gautama that amplifies the passages found in the सामविधान.

- 60 गौ. ध. सू. I. 52 ओषूर्वा व्याहृतयः पञ्च सत्यान्ताः; again in गौ. ध. सू. 25. 8 we have प्रतिषिद्धवाङ्मनसापचारे व्याहृतयः पञ्च सत्यान्ताः; and in गौ. 28. 8 the five व्याहृतिः seem to be भूः, सुवः, स्वः, तपः सत्यं. As हरदत्त remarks the five व्याहृतिः in व्याहृतिशाम are भूः, सुवः, स्वः सत्यं, पुष्यः. The व्याहृतिः are generally declared to be seven (तै. आ. 10. 28. 1), the first three being styled

* महाव्याहृतिः (vide मनु II. 81.)

thorium-bearing mineral to be found in any British possession. At the same time the geological and mineralogical collection at the Museum, originally very scanty, has been very largely added to, re-organized, and re-arranged by Dr. Coomaraswamy and Mr. J. Parsons in a separate room known as the Mineral Gallery. Dr. Coomaraswamy is of opinion that the time has not yet come for the establishment of a regular Geological Survey in the Island ; but he has recommended the employment of one permanent Government Mineralogist.

In connection with recent improvements effected in the Museum, there should be mentioned the valuable students' collections of Lepidoptera, Land Mollusca, Reptiles, &c., as these are frequently consulted by interested visitors. Several gentlemen have kindly given Dr. Willey their assistance and experience in the arrangement of special groups, among whom should be mentioned Messrs. E. E. Green, F. M. Mackwood, and O. S. Wickwar. These collections are housed in the new building which was put up in 1903, and which has proved a very great benefit.

In connection with Zoology (and the prospect some day of a Zoological Garden for Colombo), Dr. Willey has been doing a public service in endeavouring to show some of the animals of Ceylon in the flesh by way of supplementing the stuffed specimens in the galleries. We may readily judge that without special provision it is not easy to exhibit live animals with permanent satisfaction, although the comparatively few exhibited have attracted very considerable attention, to judge by the number of persons of all races and classes who are found gazing at them almost daily. No doubt a small fee for admission in aid of the expense of upkeep, &c., would readily be paid, if the collection were so enclosed as to make this desirable. But unless the Government take the matter up, or a special Society is formed to provide a Zoological Garden collection, I fear there is not much further room for development. The exhibition of live birds does not present so many difficulties as in the case of four-footed animals, and I am glad to announce that a handsome aviary has recently been presented to the Museum by Mr. T. Sanmugam, in which some of the smaller birds can be located from time to time.

The Quarterly Journal—*Spolia Zeylanica*—established by Dr. Willey, sanctioned and printed by Government, has been regularly continued. It deals specially with subjects relating to the Natural History and Ethnography of the Island, and its object is to accumulate notes and records of the rapidly changing aspects of life of all kinds in Ceylon. Twelve parts, completing three volumes, have appeared (Part XII. is now passing through the press), and when the fifth volume is completed an index will be provided. Whether or not this periodical is fully answering its purpose cannot well be decided for the present. Its usefulness from a scientific point of view is undoubted. Dr. Willey thinks it might eventually be taken over by our Society and a fund started for its continuance. In that connection a suggestion, which comes to me from a prominent Member of the Society, may be mentioned, namely, that it would make *Spolia Zeylanica* far

more generally interesting if its scope were enlarged so as to admit all and sundry "Notes and Queries" respecting Ceylon subjects which are within the object of the Asiatic Society. It is thought that many Members and other residents would readily contribute to such a department who cannot spare time to work up a regular paper for our Journal. The discontinuance of the issue of *Monthly Registers* with "Notes and Queries" from the *Ceylon Observer* Press leaves a blank which apparently is felt by not a few, and the suggestions now made as to the future of this quarterly journal deserve careful consideration.

Before leaving the Museum, I must congratulate the general public and the Members of the Society on the early prospect at last of the enlargement or extension of the Museum buildings being taken in hand. It was first urged by the Society in 1898.

The Colombo Museum may be said to be the offspring of the Ceylon Branch of the Royal Asiatic Society. It is a special matter for congratulation, I think, that the services of the accomplished and experienced Architect (Mr. J. G. Smither, F.R.I.B.A.), who designed the existing Museum building for Governor Sir William Gregory, have been secured to design the extended wings now proposed in the time of that Governor's friend and successor. His Excellency Sir Henry Blake, and that the new buildings are likely to be carried out, as Mr. Smither has designed them in accordance with the views of the Director of Public Works, after approval is given by the Executive Government and the necessary funds are voted by the Legislative Council. I have no doubt that there will be unanimity in both Councils in respect of an improvement so long urged and so desirable in every way. Some of the beneficial results which may be anticipated when the extension is complete may here be indicated. The preparation and display of natural history groups and economic products can be carried out on a much larger scale than is at present possible. The economic products particularly are capable of considerable development and representation in the Museum,—a matter of great importance, as Dr. Willis has frequently shown, to the agricultural industries and trade development of the colony,—a matter, therefore, which should be regarded with much interest by our planting and mercantile community as well as by all agriculturists.

The addition to the exhibits of the objects of antiquity which have been discovered during past years by the Archaeological Commission and accumulated at Anurádhapura will enhance the reputation of the Colombo Museum among other kindred institutions, and will accord with the views and wishes of the founder of the Museum, Sir William Gregory, as well as I am sure with the express desire of His Excellency Sir Henry Blake. The stone inscriptions at present in the Museum and many other antiquities now at Anurádhapura can be exhibited and preserved in an adequate manner and to great advantage, thus placing the Colombo Museum relatively on a par with such Museums as the Neapolitan and Egyptian institutions, having the same bearing

with regard to the Buried Cities of Ceylon that the Naples and Cairo Museums have to the Buried Cities in their neighbourhood.

The reservation of a portion of the new buildings for the purposes of an auditorium is a matter which should be taken into consideration after the work is completed. The Museum Reading Room is at present used for the Asiatic Society's Meetings, for prize givings, and for lectures. But if special accommodation were provided for such gatherings, it would be an advantage. Further, the Museum extension will be of advantage in several other different ways. First, as regards the Asiatic Society; secondly, as regards the Museum Library, which is greatly cramped at present, and is constantly growing by the addition of new books, many of which are recommended and applied for by readers who are engaged in special work, mineralogical, archæological, ethnographical, &c. We may well consider it a happy omen that the extension of our Museum buildings is likely to be effected under the auspices of a Governor who takes such a specially warm interest in all connected with our ancient history and structures, with science and art, as does Sir Henry Blake. His Excellency's friend and predecessor, Sir William Gregory, said in his first year in Ceylon that he had always looked upon Museums as the best means of imparting instruction in the most popular and agreeable form, in which all classes and races might participate.

It ought to be mentioned that there are two libraries in the Museum, the Library of the Ceylon Branch of the Royal Asiatic Society and the Museum Library, the latter the only free public library in the Colony. The Library of the Ceylon Branch of the Royal Asiatic Society contains many valuable books on Ceylon, Archæology, Oriental Literature, Voyages (Hakluyt, &c.), India, &c., and a large collection of the publications of learned Societies with whom the Society exchanges its Journal. The policy of the Museum Library has been to acquire works of reference, natural science, Oriental literature, and books on Ceylon. Of these books, the library contains many rare and costly works (*vide* Sir West Ridgeway's Address on his Administration, p. 120). The Museum Library receives a copy of every work published in the Colony since 1885. The acquisition of all works relating to Ceylon goes on at an increasing rate, and the large accessions of recent years, both by donation and purchase, have placed the institution in the position of now possessing one of the best collections, if not the best, of Ceylon literature. The special characteristics of the Museum Library, besides a very good collection of books on Ceylon, are a most valuable collection of old manuscripts in Sinhalese, Páli, and Sanskrit, a very valuable collection of books on Biology, Dictionaries, Encyclopædias, Journals, Books of Travel, Art, and Philology.

In 1870, during the administration of Sir Hercules Robinson, the Government undertook in a liberal spirit the task of rescuing the ancient literature of Ceylon, and founded the Government Oriental Library of Manuscripts, which is now a part of the Museum Library. Many valuable old manuscripts have been added by

donation, purchase, and transcription. The Museum Library is indispensable for purposes of indexing and illustrating its collections, and to the student the general collection of books and leading scientific and other periodicals received, offer invaluable facilities for study and research.

Observatory for Colombo.

I have next to refer to the need of an observatory for Colombo. For many years past it has been a standing grievance on the part of the ship captains calling at Colombo that they were not supplied with sufficiently correct time signals to enable them to rectify and rate their chronometers. The first project of establishing an observatory for the purpose was mooted over twenty-five years ago, when Mr. G. Wall's small but choice collection of astronomical instruments was on the market. With the increase in the importance of Colombo as a port of call, and in the speed of modern steamers, this grievance has steadily increased, and it has voiced itself persistently of late years. It is a remarkable fact that Ceylon is about the only Colony where correct time is not supplied. Observatories exist in India, Canada, Australia, Cape Colony, Natal, New Zealand, Mauritius, Hong Kong, St. Helena, Tasmania, West Indies, &c., where there is no single port approaching the importance of Colombo. Now that the Graving Dock is completed, this want of accurate time is likely to affect the use of our port seriously. Whenever a ship requires docking, her captain will evidently prefer taking her to Bombay for instance, whence he is certain to start with his chronometers properly set and rated, rather than to Colombo, where these facilities cannot be procured. The time received by telegraph from Madras is irregular and unreliable, and useless for the purposes of navigation, besides requiring the line to be cleared of messages for about twenty minutes every day between 3.40 and 4 P.M. Would not the value of the time lost to the Telegraph Department more than pay for the whole Observatory in a year or two? Apart from supplying time to ships, the establishment of an Observatory in Colombo will enable all the public clocks, those of the Telegraph and especially of the Railway Departments to be automatically regulated, and will ensure their pointing always to the correct time of day. We shall at last be spared the familiar but lamentable spectacle of the Clock Tower differing by five and even ten minutes from the Post Office clock, and both of them being incorrect. This state of things is utterly out of keeping with the degree of civilization to which we have attained.

The prospects of an Observatory being established are unfortunately not much better at present apparently than when the subject was mooted in the Legislative Council in June, 1903. The matter has been included three times in the Estimates in three different years, but only to be remorselessly cut out. The question has been before the Ceylon Government ever since 1897. Let us hope that it may be His Excellency Sir Henry Blake's good fortune before he leaves us to see a Colombo Observatory

fully established, and the reputation of one of the most important of Eastern seaports redeemed from reproach.

Botany and Agriculture.

To deal adequately with this very important and extensive subject would require a separate full address. Suffice to notice the formation of the Agricultural Society of Ceylon towards the end of 1904 by our present Governor as one of the most notable and important events within our record. Numerous branch societies (now numbering 42) in the different Provinces and districts of the Island have already been formed, and the membership of the parent Society is 1,035, and is growing every month, almost every week and day. It should eventually embrace every planter and intelligent agriculturist worthy of the name in the Island. An Agricultural calendar arranged for each month of the year and for the hill as well as low-country is the latest evidence of the enterprise of the energetic Secretary (Mr. Denham), who has had the assistance of the best local authorities in what, when printed in the vernaculars as in English, must prove of great use to all who take an interest in garden or field work throughout the Island. Mr. Herbert Wright's Manual on "Para Rubber, with illustrations," soon to appear in a second and enlarged edition, deserves a word of mention. In his Presidential Address on 16th December, 1881, Mr. (now Sir Charles) Bruce, G.C.M.G., made the following reference:—"The paramount influence of agriculture on the prosperity of this Colony has, to a great extent, removed the Department of Botany from the concerns of this Society to more open and more accessible channels of communication and discussion. The past year has been especially marked by the publication of the *Tropical Agriculturist*, a monthly periodical established by the editors of the *Ceylon Observer*, constituting in the strictest sense of the word a repertory (*repertorium ubi omnia reperiri possint*) of information on all subjects connected with tropical botany and agriculture. To its pages as to the report of the Director of the Botanical Gardens all who are interested in this subject will naturally refer for the operations of the year."

I quote the foregoing in order to mention that the monthly periodical referred to (which in the course of twenty-four years acquired a world-wide reputation as representative of everything connected with tropical agriculture) has now been transferred to the very efficient editorial guidance of Dr. Willis, Director of the Botanic Gardens, with competent assistants, and is now known as the *Tropical Agriculturist and Journal of the Agricultural Society of Ceylon*, and as such is sure to prove more deserving than ever of attention and perusal by all tropical farmers. Of the varied and important work done for agriculture in all branches, and for science, in botany, entomology, mycology, and chemistry, by Dr. Willis and his colleagues at Peradeniya and throughout the Island, in the Botanic Gardens and experimental stations or plantations for different products, it is superfluous to speak. Nor need more than mention be made of the scientific quarterly

periodical, "Annals of the Royal Botanic Gardens," for which Dr. Willis is responsible.

Dutch Encouragement of Agriculture.

In connection with the promotion of various branches of agriculture and of agricultural improvements, they had something to learn from their predecessors the Dutch, for he found from a Paper in one of their Journals that certain at least of the Dutch Governors and their advisers were very liberal in recognizing good work among the native headmen. For instance, it is recorded in the Minutes of the Dutch Council for 4th October, 1667 :— "Amongst other things that came before the Council on this day was the subject of agriculture in the Galle District, and it was resolved to reward those who were chief in promoting the same in the following manner :—

To the Commander, a silver jug weighing 200 Rds.

To the Dissawe, a silver gorget and tray weighing 35 Rds.

To his Assistant, 150 Rds. in cash.

To Lieut. Hans Jacob Boeff, 100 Rds. in cash.

To the Native Chiefs, 150 Rds. in cash."

Seed Testing.

In agriculture and planting, if I ventured to make a suggestion as to work to be done, it would be in reference to the "Testing of Seeds." This is a very important matter for the planter and farmer. In the United States and Australian Colonies much has been done to establish "Seed Control and Testing Stations," and there are useful little manuals published there, which might well be consulted by the rubber and other planters of Ceylon.

Medical, Engineering, Social Lectures, &c.

It may be judged that with all the different periodicals and scientific journals, departments, and associations to which I have referred, the scope of our Society (originally standing almost quite alone in the virgin field of arts, literature, and science in Ceylon) has been necessarily narrowed very considerably. And, indeed, there are several further societies and publications devoted to special branches of study in Ceylon which may as well be included in our list. There is the British Medical Association (Ceylon Branch), one of the most active and useful of Colonial branches as we learned the other day on the best authority, before which was read His Excellency Sir Henry Blake's Paper on "Ancient Theories of Casuation of Fever by Mosquitoes," a subject first of all introduced to public notice by His Excellency at our last anniversary gathering, and which has since attracted much attention in Europe and India, the latest reference being in a Paper by Professor J. Jolly, dated Wurzburg, 21st November, 1905, which appears in the Journal of the Royal Asiatic Society of Great

Britain and Ireland for January last.* Then there has recently been started a "Social Reform Society," with a Quarterly Journal; and, again, we have an Engineering Association of Ceylon just started, for which a career of usefulness may well be anticipated. Its "transactions" from time to time with plans and designs are sure to be of practical value. In respect of electrical developments alone there is great scope in Ceylon with so much water power running—may we say to waste—in our hill and even low-country. "Hitch your wagon to a star" said the American philosopher Emerson, and some approach may be said to have been made of late towards putting that counsel into practice. It has been well said that "our railway trains are dragged by the sunbeams that were bottled in the coal measureless ages ago." Now our high roads are occupied by bicycles, cars, and wagons propelled by the same force. We have electric tramways and electric lighting, although our electricity, like steam, is as yet in Ceylon almost entirely the product of coal. It is for our engineers to show what can be done through the

² SUSRUTA ON MOSQUITOES.

His Excellency Sir Henry A. Blake, Governor of Ceylon, having most kindly favoured me with a copy of his Paper on "Ancient Theories of Causation of Fever by Mosquitoes" [read before the Ceylon Branch of the British Medical Association on the 15th April, 1905]. I have once more examined all the principal medical Sanskrit texts likely to throw light on this point. The two texts of Susruta, on which the five distinguished Ceylon scholars referred to by Sir Henry Blake have rested their opinion that the medical writers of ancient India were acquainted with the connection existing between malaria and mosquitoes, were also quoted in my previous communication to this Journal (July, 1905), which was written about the same time as Sir H. Blake's Paper. Now it is quite true that the two texts, the only ones in Susruta which bear on the point, may convey the impression that he was actually aware of the fatal consequences attending the bites of certain mosquitoes, of the kind called *Paravatiya* (mountainous), which are, he says, as dangerous as "life-taking" or destructive insects. The "life-taking" insects, according to Susruta, are of twelve kinds, *Tunginasa*, &c. (not identified), and they cause the person bitten to undergo the same (seven consecutive stages of) symptoms as in the case of snake-bites, as well as the painful sensations (of pricking pain, heat, itching, and so on, Comm.) and dangerous diseases, the bite, as if burnt with caustic or fire, being red, yellow, white, or brown. The further symptoms which are mentioned in the following verses, such as fever, pain in the limbs, &c., are, however, common to all the four principal kinds of insect bites; they are not meant to be specially characteristic of the bites of "life-taking" insects. [This does not come out in the English translation proposed by the five Sanskrit scholars. It appears from the Sanskrit Commentary of Dallana.] Nor is the fever (*jvara*) of which Susruta speaks in this place likely to be true malarial fever. The term rather denotes the wound fever, which is constantly mentioned by Susruta as arising from the bites of insects, such as *Visvambharas* and *Kandumakas* [Kalpasth (viii., 15), of various poisonous spiders (viii., 51-54), of scorpions (viii., 35), of certain serpents (iv., 24), of rats

agency of our waterfalls and rivers. Meantime a new era for our roads has set in with the development of motor cars and cycles.

Before closing the record as to new intellectual developments in the Island, mention may be made of several series of public and popular lectures organized in connection with different institutions or through private enterprises in many of our towns. Foremost among these were the Colombo Pettah Library series, and also the popular series arranged in Kandy by Miss Gibbon. Other series are found in Colombo, Kurunegala, Galle, and sometimes Jaffna, in connection with Guilds, Young Men's Associations, &c., and very lately the accomplished Registrar-General made a new departure in the direction of popular lectures, inaugurating the same in a highly interesting historical sketch, in introducing which, however, he made one rather rash statement, which it is my duty as your President to notice and refute. He spoke of your Society as "almost dying of starvation" for want of Papers. I think before I am done, you all (including our worthy friend

or mice (vi., 11, 16), or from the wound caused by a poisoned arrow (v., 24)].

If the chief causes of malarial fever are "impure air and water and the existence of mosquitoes, according to ancient authorities on Ayurvedic medicine," we should be led to expect some statements to that effect in Susruta's chapter on fever, the king of diseases (*roganikarat*), where he goes very thoroughly into the causes of fever, such as derangement of the humours by some disturbing cause, as fighting with a strong man, anger, or sleeping in the daytime, by improper application of medicines, external injuries caused by a weapon or other instrument, by some disease, by fatigue or exhaustion, by indigestion, by poison, &c. Poison (*visam*) is the only term in this list which could be supposed to have any reference to mosquito bites: but the symptoms attributed to the fever caused by poison, such as diarrhoea, prove that vegetable poison must be meant, and this is expressly stated in a Sanskrit Commentary. Susruta does not refer to mosquito bites anywhere else than in the book on Poisons (*Kalpasthanam*), where he notices them very briefly, together with the stings of other insects. Poisonous spiders, e.g., are far more copiously discussed by Susruta than mosquitoes, and he attributes to them the causation of dangerous diseases, as well as of fever and other complications. Susruta's general notions of the nature of poisonous substances, including the nails and teeth of cats, dogs, monkeys, alligators, &c., are very crude, and his statements regarding animal poison in particular seem to be based, in a great measure, on an observation of the effects of snake-bites. Thus, he supposes insects (*kita*) and scorpions to be generated in the putrid carcases, excrements, and eggs of snakes; and he places the bites of dangerous animals of this kind on a par with snake-bites as to their consequences and as to their medical treatment. It does not seem advisable, therefore, to compare Susruta's remark on the fatal nature of the bites of a certain Masaka's occurring in mountainous regions with modern theories of the origin of malaria, especially as Masaka is a very wide term, which may include any fly or insect that bites, besides ordinary mosquitoes, as in a well-known text of the Code of Manu (I, 40) on the creation of "all stinging and biting insects" (*sarvam ca damsa-masakam*). The other Sanskrit authorities agree with Susruta.

himself) will realize that the case is quite otherwise. No one at least can say that the Ceylon Branch of the Royal Asiatic Society has not done good work and deserved well of the intelligent public of Ceylon in the past. How it has forged ahead may be judged from the fact of its commencing sixty-one years ago with a roll of thirty-four Members, not one of whom was a Ceylonese; while now our roll includes 203 Members, of whom no fewer than 97 are Ceylonese gentlemen, many of whom pre-eminently contribute to our Journals and discussions. As our Bishop President well said in his Jubilee historical sketch: "Instead of being a Society of European Christian visitors, interested as visitors in an Island to which they did not belong, we are now a Society of studious people separated by many distinctions of race and association, but all keenly interested in whatever belongs to Ceylon, whether bound to it as the scene of our duty or by the still stronger ties of fatherland." In this connection, too, we may dwell with some complacency on the enterprise of "sons of the soil" in going forth from Ceylon to take up work, and in many cases to fill important posts in other parts of the world, not only in the United Kingdom, but in America, South Africa, and Australia. To India, Burma, and the Straits, Ceylon has given many of her educated sons as teachers and preachers, as well as medical men, surveyors, engineers, in the clerical and other services. Ceylonese merchants and men of business are found in the United States and the Continent of Europe, and I have heard of a Ceylonese family supplying an electrical engineer of repute to a Midland company in England, a doctor in good practice in South Africa, a man of business in South America, and a teacher in a Metropolitan Public School. A Sinhalese gentleman once closely associated with this Society, Mr. D. M. de Zilva Wickremasinghe, besides being Epigraphist to the Ceylon Government, is also Librarian and Assistant Keeper of the Indian Institute, Oxford.

Our Prospects and Papers before the Society.

Among the promised Papers—to be read it is expected at an early date—is one now in course of preparation by Dr. Donald Ferguson on "The First Discovery of Ceylon by the Portuguese," with several illustrations (executed in England), which have been sanctioned by your Council. The peculiar appropriateness of this Paper will be found in the fact that on 6th April next will be the 400th anniversary of the first landing of the Portuguese at Colombo. Another valuable contribution will be "Some Survivals in Kandyan Art," by Dr. A. K. Coomaraswamy, also with illustrations. A third Paper will be on "Certain Ruins in the Ruhunaratana," by Mr. Arthur Jayawardana, retired Atapattu Mudaliyár of Galle. There are also some proposed contributions by Mr. T. B. Pohath Kehelpannala, which have to be considered by your Council.

Then I hope to complete the second and perhaps the more practically interesting and useful part of my Paper on the extension of "Coconut Planting"—that is, in Dutch and British times.

from about 1660 A.D. to 1906—before the end of this year. Apart from the prospects of some substantial Papers thus held out to Members (and others in the general public who ought to take a greater interest in our Society by becoming Members), the Council has accepted Mr. Donald Ferguson's offer to translate the parts referring to Ceylon in the works of John de Barros, the Historian of Portuguese India, and his successor Diego de Couto. The work of these gentlemen was published at Lisbon in 1778-88 in twenty-four volumes, so that the selector and translator has no ordinary task before him.

The Veddās.

There is the prospect, too, of some anthropological work of much interest to the Society being undertaken in the Island during the present year. In our first President's Opening Address sixty-one years ago, he asked the question: "Who are the Veddās, and whence came they?" This has been answered from time to time in the Journals of this Society and in other publications by able Members of the Ceylon Civil Service and Scientists like the brothers Sarasin, Virchow, and others. But I do not think that any one will say finality has been reached. Professor Virchow only dealt with second-hand material, never having visited Ceylon, and he was most earnest in closing his Paper in 1885 as to the duty of this Society and all who could help in Ceylon. His words given in our Journal are: "May the zeal of the observer know no flagging, that, before the utter extinction of this already much-depleted race, the language and customs, the physical and mental constitution of the Veddās, may in all particulars be firmly established."

And in respect of one of his points, he remarks: "New researches and further material would seem to be required before a definite conclusion can be arrived at."

The Bishop President, in his Address that same year, emphasized the need of further observation, thinking that some of Professor Virchow's conclusions might stand in need of correction. Other investigators who have done work personally in Ceylon have urged on this Society, the Museum Officers, and other Powers—that be to do all in their power to obtain, before it is too late, "information which in a few years will be unobtainable." One observer concluded that within the present century it might almost be impossible to find a real Veddā in Ceylon. It will be remembered, too, that Sir E. F. im Thurn, in his closing Address in September, 1904, remarked: "Far too little has yet been achieved in the direction of Anthropology, and the cave-dwelling Veddās might well receive more attention." That being the case, it may be asked, what has been done since 1885-86, towards what Professor Virchow and others urged on us? I fear little or nothing. Under these circumstances I am sure you will learn with much interest the contents of a letter I received by a recent mail from Dr. Haddon, F.R.S., of Cambridge University, one of the leading anthropologists of the day. He writes: "We have recently appointed

Mr. A. R. Brown, B.A., Trinity College, as the first Anthony Wilkin Student in Ethnology, and he proposes to study the Psychology and Sociology of the Veddás. Mr. Brown is thoroughly trained in all methods of experimental psychology suited for field work, and no one who has not had such a training can hope to do that kind of investigation with sufficient accuracy to satisfy the requirements of students at home. Further, Mr. Brown has learnt from Dr. Rivers and myself methods for conducting investigations into the sociology of primitive peoples. So much of the work done by those who have not learnt the proper methods is unsatisfactory and incomplete, and ought to be done over again. What Science now demands is accurate, detailed, and exhaustive work; all this requires training, and cannot be picked up by any one in the field. In addition, Mr. Brown has studied physical anthropology and other subjects that will be of use to him. I write all this to satisfy our Ceylon friends that we are sending out a thoroughly competent person for this class of research. Further, Mr. Brown is a very cultured man, for not only has he taken a first class in the Moral Science Tripos, but he has a wide knowledge of literature. He is a young man with a brilliant future before him, and I sincerely trust he will be afforded every facility that can be granted to him, for I feel certain he is worth it. Any further information you desire I shall be most happy to supply. He hopes to start in about ten weeks' time." Dr. Haddon wrote about the middle of February, so that Mr. Brown, if he does come, should soon be here. Unfortunately, the question of "ways and means" may just possibly prove a hindrance at the last moment, as his travelling scholarship is not a rich one; but I trust any difficulty may be got over, and I feel sure anything that His Excellency the Governor and the officers of Government of all ranks, the Members of this Society, and others interested in the Veddás can do to promote Mr. Brown's investigation, or to render him needful assistance, will be readily accorded.*

Work to be done ; Suggestions to Members.

Our Vice-President, Mr. J. P. Lewis, has been calling public attention through the Press to the need of a compilation for Ceylon similar to that published by the Indian Government on "Indian Monumental Inscriptions"—Vol. III., being "List of Inscriptions on Tombs or Monuments in Madras," by Julian James Cotton of the Civil Service, having appeared from the Government Press a few months ago. If Members and others in different parts of the Island assisted Mr. Lewis in getting the inscriptions copied, I have no doubt His Excellency the Governor would aid us in the printing and publication.

So long ago as 1884 the then President (afterwards Sir John F. Dickson) suggested that an interesting Paper, read by Mr. Ievers,

* Unfortunately the Ceylon Government did not see its way to give encouragement or aid for Mr. Brown, and so he went on to the Andamans.—J. F.

might be developed by some Member of the Society into a continuous account of the history of the *Tooth-relic* since its arrival in Ceylon in 310 A.D. This remains to be done.

Then, again, the late learned Mr. James Alwis's unfinished work has never been taken up, and we have yet to see an adequate and complete history of Sinhalese literature.

In this connection it may be remarked that the Committee on Oriental Studies are anxious to have a text book on the Philology of the Sinhalese language and another on the Archæology of Ceylon.

I know how big a subject and large an undertaking are opened up when I ask what has become of the "Sinhalese Glossary Committee," for which our Bishop President did so much. It would be well if we could persuade his brother, and successor in the Diocese, to join our Society and to take a part (for which, as an accomplished Sinhalese scholar, he is so well fitted) in a new "Glossary Committee," towards the fulfilment of the adequate Sinhalese Dictionary, which all our scholars desiderate.

The translation for our transactions of that part of Valentyn which treats of Ceylon has yet to be accomplished; perhaps it may be done after Mr. Donald Ferguson has finished his present translations for our Society.

A very minor but interesting question to be answered is, By which Sinhalese King was the canal between the Kelani river and Negombo lake—alluded to by Jesuit priests in 1613—constructed? Mr. Donald Ferguson says he cannot tell. Is there any reference in the old books to help us? The Government Archivist tells me there were six principal kings between 1500 and 1600 A.D. (the period when it must have been cut), apart from inferior kings. He thinks Don Juan Dharmapala (1542–1584) to be the most likely to have made the canal.

Some day we may hope to see a new edition revised, corrected, and brought up to date of the most charming and instructive book ever written about Ceylon, namely, the two volumes by Sir J. Emerson Tennent, published over forty years ago. The editor and reviser will find much information to help him in our Journals, notably in the Paper demonstrating that the Chinese invaders fought the Sinhalese King at Kotté and not at Gampola; that Sirivardanapura was not the modern Kandy, but a town six miles from Dambadeniya, on the road between Kurunégala and Negombo; and that the Portuguese first appeared at Colombo rather than Galle.

A new and judiciously edited reprint of Robt. Knox's ever-interesting book, embodying all the errata which he himself supplied, and giving notes identifying the places mentioned as far as possible, would be a useful work. Mr. Donald Ferguson has collected a good deal more of information about Knox since his pamphlet on the subject appeared.

An up-to-date "Gazetteer of Ceylon," utilizing so far Simon Casie Chitty's work of seventy years ago, and still more Sir Archibald Lawrie's admirable "Kandyen Gazetteer," would be useful.

It will shortly be desirable to have the very excellent index, so ably compiled as a labour of love by Mr. J. F. W. Gore for Journals I. to LXI. (that is, up to 1890), of our Journals and Proceedings continued to the present time.

I am quite of the opinion that, so far as funds permit, the Society ought to go on reprinting past Journals that may have got out of print. An accession to our membership would enable this the more readily to be done. Some years ago, indeed, it was proposed to ask the Bengal Royal Asiatic Society for permission to reprint as part of our transactions the valuable Papers contributed to that Society's Journal by the late George Turnour. But I think we ought first to be sure of making available to new Members or other purchasers all the past Journals of our own Society.

Our field of work may be narrowed by the multiplication of so many different agencies—private as well as official—which take up the different branches of science and study. But there is plenty left for the Members to do if they only follow, in all reverence and humility, the pursuit of truth and the elucidation of what remains within the full scope of the Royal Asiatic Society of Ceylon.

Portuguese, Dutch, and early British Maps.

A series of copies of Dutch maps of the whole or parts of the Island and plans of the towns have lately been procured by the Ceylon Government from The Hague, and are now, some of them, in charge of the Surveyor-General and some of the Government Archivist. I have been favoured with lists of the same, which it is well to put on record :—

List of Dutch Maps in Surveyor-General's Office.

927	..	Map of Ceylon (one section only).
929	..	Do. Giant's Tank.
930	..	Do. do.
931	..	Do. do.
932	..	Do. do.
933	..	Do. do.
934	..	Do. do.
935	..	Do. Kalutara District.
936	..	Do. Salpiti Korale.
937	..	Do. Alutkuru Korale.
938	..	Do. Panadure.
939	..	Do. Trincomalee District.
1,014	..	Do. Trincomalee.
1,071	:	Do. Galle.

Besides the above, there are in office one ferro-gallic copy of a map of Karachchi, one folded map of Jaffna, and one folded map of the Island.

List of Maps with the Government Archivist.

941	..	Map of old Colombo.
942	..	Do. Siege of Colombo.
944	..	Do. Colombo.
946	..	Do. do.
948	..	Do. do.
950	..	Do. do.
952	..	Do. Fort of Colombo.
953	..	Do. Environs of Colombo.
954	..	Do. Environs of Fort of Colombo.

List of Maps and Plans with the Government Archivist.

- (1) Plan of Colombo, *circa* 1656.
- (2) Plan and Chart of the Environs of Colombo, *circa* 1750.
- (3) Chart of the Fortress of Colombo, of the Pettah, showing the situation of the Lake and the surrounding land. Prepared by Captain Foenander in 1785.
- (4) Portuguese Map of Colombo.
- (5) Plan of the Castle of Colombo and the Pettah, 1681.
- (6) Plan of the Castle of Colombo, 1697.
- (7) Map of Colombo and its Environs, without date.
- (8) Map of the Jaffna Peninsula, 1720.

Maps.

I have also been favoured from the Surveyor-General's Office with the loan for this evening of a map prepared in 1719 for the then Dutch Governor, and which deals mainly with districts in the south-west maritime coast, coloured fully where occupied by the Dutch, and with a red line to indicate the limit of the territory taken from the Kandyan ruler and more or less within Dutch influence. The map refers mainly to cinnamon cultivation, and the divisions growing the finest are specially shown, while little circles in red indicate the villages occupied by the Chaliyas when engaged in peeling. Dutch maps of Ceylon are not uncommon; but there is scarcely anything of this kind appertaining to Portuguese times. The Government Archivist reports: "I have among the maps in my possession an old rudely drawn one of Colombo with the names in Portuguese. This I believe to be a map of the Portuguese times. I have not seen any other of the period, although I have an idea the Museum has some very old maps."

This plan of Colombo in Portuguese times has been lent for this evening, and is now before you. Though, undoubtedly, a Portuguese plan, many Dutch words are inserted in it. It is very interesting, as showing how far the fortifications of Colombo at the time extended,—quite out to Kayman's Gate and embracing all the Pettah, which, indeed, to this day is known as the old city. It is also interesting for the number of churches shown (one on

the site of the present Pettah Burial Ground), and altogether for its quaint look. Had there been time this map ought to have been engraved for the forthcoming Paper on the Portuguese in Ceylon. The Honorary Secretary, Mr. Joseph, exhibits from his office an old Portuguese sketch (doubtless enlarged) of the Colombo Inner Harbour, Customs House, and other buildings, which may have been taken from the more detailed map or perhaps a little later.

From Mr. D. W. Ferguson I have got the loan, on purpose to exhibit here, of the only copy he has heard of being available, of the illustrated map, prepared by Mr. Charles Wynne Payne, to accompany a book on "Ceylon, its Products, and its Capabilities, &c.," published in 1854 in England. The illustrations show types of different sections of the Sinhalese, Tamil, and Moormen, with some attractive views of scenery, of the elephant, coffee in fruit and flower, &c. This map, published fifty years ago, is specially interesting because of the author having, at so early a date, boldly drawn the lines of railway which he thought ought to be constructed in order duly to develop the Island. Beginning at Galle he ran a coast line, not only to Colombo, but on to Puttalam and Mannar and over the Mannar Island facing Adam's Bridge, ready for the connection with India. Then, this coast line was continued to Jaffna; and was then led diagonally across country to Trincomalee. Thence, the line connected across country with Kandy and ran on to Colombo. Another line from Kandy ran direct to Batticaloa, ignoring intervening mountain ranges! It will be observed that Mr. Payne never anticipated the necessity which has carried our railway system up to 6,200 feet and down into the heart of the Uva Principality—the most wonderful mountain railway of 160 miles from Colombo to Bandarawela, in some respects, that can be found on the surface of the globe.

8. The Hon. Mr. John Ferguson, C.M.G., President, then read the following Paper.

**THE COCONUT PALM IN CEYLON :
BEGINNING, RISE, AND PROGRESS OF ITS CULTIVATION.**

**No. 1.—From earliest Times to 1660 A.D. or the close of the
Portuguese Occupation of the Maritime Provinces.**

By the Hon. Mr. JOHN FERGUSON, C.M.G.

THE Coconut Palm has been the subject of several Papers included in the Journals of this Society. In the very first number, published in 1845, there is a Paper "On the Ravages of the Kuruminiya or Coconut Beetle," by J. Capper. The same beetle is referred to by Edgar Layard in the fourth issue of the Journal a few years after, in the course of a sketch on the Natural History of Ceylon. Again in Journal No. 5 the brothers J. G. and W. S. Taylor of Batticaloa contributed an interesting Paper "On the Manufacture of Sugar from the Juice or Sap of the Coconut Tree." In 1853 Mr. A. O. Brodie of the Civil Service contributed a statistical account of the Districts of Chilaw and Puttalam, in which reference is made to topes of coconuts along the sea coast, the total of the palms in the two districts altogether being then estimated at 950,000, covering about 12,000 acres. Then in 1882 we had brief references to the coconut palm from Ibn Batúta's account of his visit (in 1343) to the Maldives in the Paper translated for us by Mr. Albert Gray. And, finally, there is a reference to this palm in Johann Jacob Saar's Account of Ceylon in 1647-1657, translated for the Society by Mr. Freudenberg, Vice-President, in 1885. The traveller there speaks of "the many and beautiful trees called coconut trees" in the Island, and details some of the ways in which they are utilized; while he also mentions

that the numerous monkeys "do much damage to the trees." [Mr. Geo. Wall in his Papers on an Introduction to a History of the Industries of Ceylon, vol. X., No. 37, 1888, makes no reference to the coconut palm.]

But nowhere throughout the Proceedings and Journals of this Society extending over a period of sixty years is there information afforded on a subject which, we might consider, should be of special interest to its members, namely, the first appearance and gradual spread, through cultivation, of the coconut palm in Ceylon. Unlike cinnamon, which is found growing wild as a tree in the jungles of the interior, the coconut palm (*Cocos* nucifera*, the Pol-gas or Pol-gaha of the Sinhalese) is not indigenous to the Island. All that the late Dr. Thwaites, F.R.S., in his "Enumeratio Plantarum Zeylanicæ" says of this palm under "Habitat" is :

* Dr. Trimen mentions that "Cocos" is from the Portuguese name *Coco* or *Coquo*, given to the fruit from a fancied resemblance to a monkey's face. Marshall quotes Mr. Booth's Analytical Dictionary : "The three holes at the end of the shell give it the appearance of the head of a monkey." But he himself considers *Coco* is derived from the Greek word *Kocos*, a seed, nut, or shell. Baldæus, in his account of the idolatry of the East Indian Pagans, mentions how *Ixora* [*Isvara*] turned the head of a man (beheaded by her) into a coco tree, "whence it is that the Indians say that the print of a man's face was fixed in the coconut." Early European writers up to the 10th century speak of it as "the nut of India," a term used by Robert Knox in the 17th century. Mudaliyâr A. Mendis Gupāsékara informs me that the Sinhalese word "pol" is considered a pure original Sinhalese word. He also writes : "Maharuk or máruk, another ancient Sinhalese word for coconut, literally means the great or chief tree, and indicates that it must have been in the Island in great abundance from a very ancient date."

[The derivation of the name of the nut from Portuguese *coco*, "bngaloo," rests on the statement of Barros (Dec. III. III. vii.) and Garcia da Orta (*Col.* 16), whose books were both published in 1563. Barbosa (1516) says : "We [Portuguese] call these fruits *cocquos*." But the anonymous writer of the voyage of Vasco da Gama (1498-9) speaks of *coquos* as if the name were the ordinary one, though the Portuguese had never seen the palm or fruit before this voyage (see Count Ficalho's remarks in his edition of Garcia da Orta's *Colloquios*, i. 247-50). See also *Hobson-Jobson*, s. v.

The word *pol* is derived by Professor W. Geiger (*Etym. des Singh.*) from Sanskrit *puṭa*, "funnel-shaped, hollow space ;" Pāli *puṭa*, *puṭi*, "vessel : " and he adds that in Sanskrit *puṭodaka* is coconut, lit. "having water in its hollow (fruit)."—D. W. F.]

“Commonly cultivated throughout the warmer parts of the Island.” The late Dr. Trimen, F.R.S., in his “Handbook to the Flora of Ceylon,” is more explicit, his statement being : “Universally cultivated throughout the low-country, especially near or on the sea coast ; but not wild.” A very experienced Ceylon coconut (as well as cinnamon, coffee, and tea) planter—Mr. W. B. Lamont, who first came to the Island in 1841, and still survives near Ratnapura—gives the following reasons, as the results of his observations in different districts of the Island, why the coconut cannot be regarded as indigenous :—

“We do not find in the coconut tree, as it appears in Ceylon, the characteristics of an indigenous plant ; we do not find it growing to maturity, and producing its seeds in the midst of the other natural growth : but wherever Nature resumes her sway and maintains it for a few years on land in which this palm grows, we see it pine, cease to bear fruit, and ultimately die off ; the neighbourhood and agency of man seem necessary not only to its propagation and well-being, but to its existence. It is only found as a cultivated plant ; starved and neglected indeed it may be, but never totally abandoned to Nature for a long period of years.”

Again, as Tennent so well puts it :—

“The presence of the coconut palm throughout Ceylon is always indicative of the vicinity of man, and at a distance from the shore it appears in those places only where it has been planted by his care. The Sinhalese believe that the coconut will not flourish ‘unless you walk under it and talk under it’ ; but its proximity to human habitations is possibly explained by the consideration that if exposed in the forests it would be liable, when young, to be forced down by the elephants, who delight in its delicate young leaves.

“In the deepest jungle the sight of a single coconut towering above the other foliage is, in Ceylon, a never-failing landmark to intimate to a traveller his approach to a village. The natives have a superstition that the coconut will not grow out of sound of the human voice, and would

die if the village, where it had previously thriven, became deserted.”—*Tennent, vol. I., p. 119, fifth edition.*

Then again Sir Samuel Baker, after eight years of wanderings in Ceylon jungles, remarks :—

“Groves of coconut trees towering over the thorny jungles often become monuments sacred to the memory of an exterminated village, and wild elephants generally overturn (ownerless) coconut palms, luxuriating in the succulent tops.” *

De Candolle—I suppose, the greatest authority on the subject—places the original habitat of the coconut palm in the Eastern Archipelago, somewhere in the neighbourhood

* On the other hand, Simon Casie Chitty (in his “Ceylon Gazetteer,” 1833) has no doubt about the coconut palm being indigenous. Here is how he introduces the subject :—

“Among the trees indigenous to the Island (if we except cinnamon, which furnishes the greatest item of its commerce) the claims of the coconut tree appear to predominate. Such is the benefit which this tree confers on the natives, that it is celebrated in song by the ancient bards ; and one of them [whether Siphalese or Tamil is not mentioned] thus elegantly expresses the quality of its fruit in a Sanskrit stanza :—

Usaggra uásé nacha pakshí rájá [1]

Jalanta tári nagato na méghá

Subbrahma chári nacha chandro máya

Trínétri dhári nacha Iswaránám. [2]

It resides on high—yet it is not the king of the birds :

It yields water—yet it is not the raining cloud ;

It is white—yet it is not the moon ;

It has three eyes—yet it is not Iswara.

[1] The Garuda, a bird sacred to Vishnu, and consequently worshipped by his votaries. It is the Pondicheri eagle of Brisson, and its origin and history form the subject of one of the eighteen Puránas.

[2] Iswara is one of the mystical names of Siva, who is represented with three eyes.”

Mudaliyár Guṇasékara reminds us that the coconut is mentioned in the great Indian epic *Mahábhárata* ; and the Sanscrit *dákshināṭya*—one of the names of the palm—literally means “ native of the south.” The “ *Materia Medica* ” of the Hindus compiled from Sanscrit medical works makes mention of various medicinal properties and uses of the coconut. The Mudaliyár adds that the name of the coconut tree in Tamil (*tennei*) seems to mean the southern tree, this tree having been brought, according to tradition, from Ceylon. So also says Dr. Caldwell in his grammar the Dravidian languages ; but this is quite consistent with the view that the coconut originally came to Ceylon from the farther south-east.

of Sumatra and Java, and surmises that nuts floated thence both east and west—eastwards to the islands of the Pacific and the coast of Central America, and westward to Ceylon and India and the east coast of Africa. He considers that the introduction of the coconut into Ceylon, India, and China does not date back beyond 3,000 years; but that it floated by sea to the coasts of America and Africa at a more remote epoch. The native Sinhalese tradition that locates the earliest specimen or grove of this palm in the neighbourhood of Weligama, on our southern coast, is in strict accordance with what might be expected under De Candolle's theory. [A glance at the map of Asia would seem to show how readily coconuts could float from Sumatra to Ceylon. After the eruption of the volcano Krakatao in Java, in August, 1883, the south-east shores of Ceylon were invaded by tidal waves carrying ashes and other *débris*.] The tradition is that a king of Ceylon was a leper, or afflicted with some skin disease, and that he (Kusta Rāja) was cured by sea-bathing and the milk of the coconut, or the use of its expressed oil. The legend goes on to say that the king found no people where he found the coconut palm of his dream, as if to testify to its introduction through nuts carried across the sea from Sumatra and taking root on the sea coast near Weligama.*

* The affinity of a great majority of the genera (represented on our Ceylon south-west coast) is distinctly Malayan as opposed to Indian.—*Trimen*. Curiously enough to *Trimen's* remark "Coconut cultivated throughout the tropics, the origin is not known," Sir Joseph Hooker adds: "Indigenous according to Kunz in the Cocos and Andaman Islands." But Dr. Henry Marshall, Deputy Inspector-General of Army Hospitals, writing in 1836, says: "It is remarkable that the coconut tree has never been introduced into the *Andaman Islands*, although it is very extensively cultivated in the Nicobar Islands, which are within 30 leagues of the little Andamans." Evidence, I believe, has been afforded within historic times of the coconut taking root of itself after floating across the sea; but a curious case of prematurely jumping to a conclusion occurred in 1890 to a distinguished botanist, who wrote to the London weekly, *Nature*:—

Self-Colonization of the Coconut Palm.

The question whether the coconut palm is capable of establishing itself on oceanic islands, or other shores for the matter of that, from seed cast

The fullest version I have seen of the "Traditional account of the original discovery of the coconut tree, by an ancient Sinhalese Prince of the Interior of the Island of Ceylon" is

ashore, was long doubted : and if the recent evidence collected by Professor Moseley, Mr. H. O. Forbes, and Dr. Guppy, together with the general distribution of the palm, be not sufficient to convince the most sceptical person on this point, there is now absolutely incontrovertible evidence that it is capable of doing so, even under apparently very unfavourable conditions. In the current volume of *Nature* (page 276) Capt. Wharton describes the newly-raised Falcon Island in the Pacific : and in the last part of the Proceedings of the Royal Geographical Society Mr. J. J. Lister gives an account of the natural history of the island. From this interesting contribution to the sources of the insular floras we learn that he found two young coconut palms, not in a very flourishing condition, it is true : but they were there, and had evidently obtained a footing unaided by man. There were also a grass, a leguminous plant, and a young candle-nut (*Aleurites*) on this new volcanic island—a very good start under the circumstances, and suggestive of what might happen in the course of centuries.—*W. Botting Hemsley (Nature, April 5, 1890).*

This was answered in the following issue:—With reference to Mr. Hemsley's note on this subject to *Nature* (page 537), I regret to have to inform him that the two young palms found on Falcon Island were placed there by a Tongan Chief of Namuka, who in 1887 had the curiosity to visit the newly-born island, and took some coconuts with him. This information I received from Commander Oldham, who had been much interested at finding these sprouting nuts at some 12 feet above sea-level and well in from the shore of the Island, but who found out the unexpected facts in time to save me from making a speculation somewhat similar to Mr. Hemsley's.—*W. J. L. Wharton (Nature, April 24, 1890).*

A writer in the *Journal of the Indian Archipelago* for 1850 observes that the tendency of the coco palm to bend above the sea, causing its fruit to drop into the water, appears to account for its extension to the numerous islands and atolls to which the nut is floated by the winds and tide. The little island of Pulo Merga off Sumatra, not a mile round and so low that the tide flows over it, is of a sandy soil and full of coconut trees, although at every spring tide the salt water goes clear over the island—so fond is the palm of the sea and salt.

"Essentially littoral," says Dr. Hartwig, in his *Tropical World*, "this noble palm requires an atmosphere damp with the spray and moisture of the sea to acquire its full stateliness and growth : and, while along the bleak shores of the northern ocean the trees are generally bent landward by the rough sea breeze, and send forth no branches to face its violence, the coco, on the contrary, loves to bend over the rolling surf and to drop its fruits into the tidal wave. Wafted by the winds and currents over the sea, the nuts float along without losing their germinating power, like other seeds which migrate through the air : and thus, during the

in the *Ceylon Miscellany* for July, 1842. A much more concise statement (which I give as a note) was sent to me some years ago by the late Mr. W. N. Rájapakse, Proctor of the Supreme Court.*

lapse of centuries, the coco palm has spread its wide domain from coast to coast throughout the whole extent of the tropical zone. It waves its graceful fronds over the emerald isles of the Pacific, fringes the West Indian shores, and from the Philippines to Madagascar crowns the atolls or girds the sea-border of the Indian Ocean. But nowhere is it met with in such abundance as on the coast of Ceylon, where for miles and miles one continuous grove of palms, pre-eminent for beauty, encircles the 'Eden of the Eastern Wave.' Multiplied by plantations and fostered with assiduous care, the total number in the Island cannot be less than twenty millions of full-grown trees [the estimate of 50 years ago.—J. F.]; and such is its luxuriance in those favoured districts, where it meets with a rare combination of every advantage essential to its growth—a sandy and pervious soil, a free and genial air, unobstructed solar heat, and abundance of water—that, when in full bearing, it will annually yield as much as a ton's weight of nuts—an example of fruitfulness almost unrivalled even in the torrid zone."

* THE TRADITION RESPECTING THE INTRODUCTION OF THE
COCONUT INTO CEYLON.

(By the late Mr. W. N. Rájapakse, Proctor, Supreme Court.)

1. Kusta Rája (so called because he was afflicted with a cutaneous distemper) is the first person whose name is associated with coconut cultivation. He was a provincial king or prince in the midland parts of the Island. His disease having baffled the skill of his physicians, he was going about seeking a cure. On the beach of the sea coast somewhere near Weligama he found a coconut tree growing there and bearing fruit. The tree is supposed to have grown from a nut washed on shore from some foreign land. He drank the water of the nut either out of curiosity or by advice, and probably repeating the dose he got cured. This induced him to make a plantation of coconuts in the vicinity of Weligama. The result having proved beneficial to man, his image cut out of the solid rock was placed by the people of the place to perpetuate his memory.

2. Kusta Rája is believed to have lived after the conquest of the Island by Wijaya, and there are reasons to suppose that the coconut was known in Ceylon in the time of our first king.

3. The worship of certain gods, devil-dancing, and *bali* or invocation of the flowers were observed in Ceylon in the time of Wijaya and before that, and in all these three things the coconut plays an important part. In worship of gods the oil of the nut is used for lighting the lamps, and it is preferred to all other oils, except scented oils. In devil-dancing

Curiously enough, the *Mahāvamsa* (the ancient Sinhalese history of Ceylon) does not contain nearly so many references to the coconut as it does to the palmyra palm, probably

and *bali* a coconut is placed at the feet of the patient, and the devil-dancer concludes the ceremony by imploring that the ailments of the patient may descend to the coconut.

4. The invocation consists of the repetition of a number of verses which are herewith enclosed. This poem was composed by Totagammuwe Sri Rāhula, the Shakespeare of Ceylon, who by the way was a contemporary of the Bard of Avon. though they lived in different countries and were unknown to each other. In the commencement the poem sets out that the coconut was imported into Ceylon to be placed at the feet of Wijaya on the occasion of a *bali*, intended perhaps to avert the evils of his ingratitude to Kuvēpi and murder of her people. According to this poem the home of the coconut was beyond seven seas. Then it goes on to describe the different kinds: the king-coconut, the scoert-husked* coconut, the diminutive coconut, and the *tembili* or the first-mentioned kind, being the one from which the other kinds sprang. Before this poem was composed in Sinhalese it is believed that the same existed in Sanskrit, like most of the *mantras* or charms used in devil-dancing, but it was rendered into Sinhalese and versified for facility of learning it by heart and to please the patient by its melody. This poem bears on it the impress of antiquity and is full of poetic genius and fire: no one now living can compose poetry like this. I think. This poem is repeated throughout Ceylon.

5. If this statement of importation of the coconut be true, this is a new and important fact, and Kusta Rāja must at once be deprived of the credit of being the first finder of the nut and the honour be given to whom it is due. In this connection it is interesting to be reminded that the coconut tree flourishes best in that part of the Island where Wijaya reigned.

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* "Scoert-husked coconut" puzzled me somewhat; but I am inclined to think "*scoert*" stands for the Dutch *zoet*, sweet. It is this description of coconut which I believe Mudaliyār Guṇasēkera translates *Narase* (see page 9). *Narase*, I know, is a kind of coconut with a sweetish husk which, when tender, is eaten with great relish by the villagers.—R. G. Anthonisz.

because the latter, flourishing in a drier region, was better known at that time in North Ceylon and in India. Tennent finds an explanation in the fact that the *Mahāwansa* was

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written by residents in the interior of the Island, while the coconut palm grew along the sea coast. One shrewd surmise why the *Mahāwamsa* has so little to say about the

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The translation was made for me some years back, at the instance of Mr. H. C. P. Bell, C.C.S., by the late learned Chief Translator to Government, Mudaliyār B. Guṇasékera, and runs as follows :—

Translation.

1. In by-gone days a king-coconut could not be had when King Vijaya wanted one to put his noble feet upon (on the occasion of a ceremony intended) to avert a severe calamity.
2. On inquiry he was told that a king-coconut of golden colour might be had in a country on the other side of the Seven Oceans. He procured it in the following manner.
3. In order to remove the calamity it assumed the form of Ganésa (a Hindu god) typified by Nalikéra (a term for coconut in general). I am going to give an account of the origin of the golden *tembili* (king-coconut).
4. When a question arose as to who would go to fetch the *tembili*, the great Tera (Buddhist priest) Anada immediately brought and gave it.
5. At the end of seven days from the coronation of the wise Ganésa, born in the womb of Queen Irugal (who lived) in a country beyond the Seven Seas, the germ was seen.
6. Ganésa was defeated in a battle and his head fell in an extensive forest. Sakra, with his divine eyes, observed it in an instant and enclosed it with a strong fence.
7. It (the head metamorphosed into a coconut plant !) grows daily and attains height, with flowers of a cubit in length. Its young shoots become green and rustle before the wind.
8. At the end of full three months the flowers burst open with pedicles loaded (with tender fruit) at the tips. The bees alighting with joy make a noise on them. The tree bore five kinds of coconut.
9. The *first* was "ran-tembili" (king-coconut of golden tint), the *second* was "gon-tembili," the *third* "navisi," *fourth* "bodiri" (the *fifth*, not specified). After six months the fruits ripen.
10. The goddess of the Earth lives at the foot of the tree ; Mahakela, the snake-king, at the middle of the trunk ; the elephant-king and the god-king (Sakra) at the top ; while Vishnu and Sak-king live within the nut.
11. Ganésa, the three-eyed god, wearing a crown on his head, has given this coconut. By the efficacy of the incantations now used in

coconut, hazarded by the late Mr. H. Nevill of the Civil Service, is that the practice of toddy-drawing after a time, and its distillation into spirit, would prejudice the priestly historians against the palm and its cultivation.

The very earliest references to the coconut in the *Mahā-waṇsa* are more or less legendary, the first especially, when we are told in chapter XXV., page 98 :—

“ During the battle between Duṭṭḡemuṇṇu and Elāla (about 161 B.C.) Gotha (one of the former’s warriors) is said to have seized a coconut tree and Mahasona (another warrior) a palmyra tree — with which they slaughtered the Damilas.”

The next, from the same chapter, page 140, is quoted by Tennent as the very earliest mention of the coconut. It is simply mentioned as being known in Rohuṇa to the south, 161 B.C.; and again, the milk of the small red coconut is stated to have been used by Duṭṭḡemuṇṇu in preparing

connection with the 35 *yagas* (sacrifices or religious ceremonies) may every misfortune come down to this coconut.

12. In the first place, the eminent sage brought (it) into existence. The divine Prince Gaṇéśa cut it up. The divine Īśwara (Siva) gave it three eyes. Hence the appearance of golden king-coconut in the world.

13. Īśwara went and broke the head of Gaṇéśa, Sakra picked up this head and threw it up to a height of 3 *gaw* (12 miles). Then it became *raṇ-tembīlī* in Sakra’s beautiful pleasure-garden : (hence) the present calamity has been removed.

[The usual nonsensical language of native charmers and kapurālas and kaṭṭadiyas (god-priests and demon-priests).—B. G.]

To another Sighalese gentleman still in our midst, we are indebted for the following : “ The earliest mention of coconuts occurs in a story known as the ‘ Kuweni Hella.’ It is stated there that Wijaya was afflicted with a dire skin disease and was roaming about in despair when he came across some fruits fallen under a tree which grew wild, which he ate, being quite unaware that it was wholesome, and discovered its wholesome properties, and that this fruit was the king-coconut. The date of this compilation and the author are unknown. One thing is certain, that when the compilation was made the tradition was prevalent in the Island, that at the date of the Wijayan invasion coconuts grew wild on the coast of Ceylon, and that neither the indigenous Yakka population nor the invading Aryans of Northern India knew the use of it.”

cement for building the Ruwanweli Dágaba (*Maháwaṇsa*, chapter XXX., p. 169).*

But the strange fact (remarks Tennent) is that notwithstanding these and other very early references nothing is said of the coconut as an article of food, nor is the palm given in the list of fruit trees to be planted, before 1153 A.D., Prakrama I. (*Maháwaṇsa*, chapter LXXII.).

But before we come to this date we have the passage in chapter XLII., first brought to light by the late Mr. H. Nevill, C.C.S., which records how King Agrabodhi I. about 589 A.D. caused "a coconut plantation of three *yojanas* (about 36 English miles) in extent" to be formed, probably between Dondra and Weligama, and so it is surmised that his statue was cut out of the rock near the Weligama Viháre as a memorial of the king who introduced coconut planting into Ceylon.

This is doubtless the *very first* record of the formation of a *regular coconut plantation* in Ceylon; but that there must have been many palms growing before this time on the southern coast, and more especially around the port of Galle, we know from independent authority. Even Ælian, the Roman Historian, so far back as the middle or end of the 2nd century speaks of the sea coast of Ceylon as covered with palm trees (possibly referring to palmyras in the North and coconuts in the South). Chinese writers of the 5th century—when Galle was a chief port for the exchange of trade between East and West—mention "coconuts" and "arrack" (distilled

* "Philalethes" (Dr. Robt. Fellowes, M.A.) in his summary of Singhalese history has a curious statement, apparently from Valentyn, but not traceable in the *Maháwaṇsa*. It runs: "Muta Singa Raja (the Mntasiva of the *Maháwaṇsa*, who reigned 60 years) planted in the wilderness a great grove of coconut trees to which he gave the name of Mahamuna." In chapter XI. of the *Maháwaṇsa* we are told the King Mntasiva formed the delightful royal garden Mahámégga (so called because of an unseasonably heavy fall of rain just as it was being laid out) which was provided in the utmost perfection with every requisite, and adorned with fruit- and flower-bearing trees of every description; but no mention is made of coconut, nor indeed is any fruit specified at all.

from the coconut palm) as produced in Ceylon. Elsewhere in the same century the coconut is spoken of as the palm tree that bears "the great Indian nut;" and curiously enough Robert Knox, 1,200 years later, writes of the same palm as if it belonged to India rather than Ceylon.* Writing in 520 A.D., Sopater described Ceylon as surrounded by a multitude of exceedingly small islets (referring to the Maldives) "all containing fresh water and coconut palms."

Henry Marshall (Deputy Inspector-General of Army Hospitals in Ceylon about seventy years ago), who published a Monograph on the Coco Palm in 1834 (2nd edition, 1836), begins by stating: "The earliest notice of the coco tree which the author has seen is contained in an account of the travels of two Mohammedans in India and China in the 9th century." This reference seems to have been chiefly to arack, and was about 810 A.D.

The fact is that a very backward part of Ceylon up to 1000 A.D. or later was the south-west coast, where the palm grew; the people seem to have been of the aborigines or Veddās, so primitive were their ways, and any trade was in the hands of the Moors, who up to the beginning of the 16th century controlled all commerce,† but these

* "Here are also of Indian Fruits, coker-nuts"—*Knox*, page 28 (edit. 1817); and that is all he has to say, although he gives a long account of the areca, talipot, jak, kitul, cinnamon, &c.

† This is what Tennent says: "During the middle ages, when Ceylon was the Tyre of Asia, these immigrant traders (the Moormen) became traders in all the products of the Island, and the brokers through whose hands they passed in exchange for the wares of foreign countries. At no period were they either manufacturers or producers in any department: their genius was purely commercial, and their attention exclusively devoted to buying and selling what had been previously produced by the industry and ingenuity of others. They were dealers in jewelry, connoisseurs in gems, and collectors of pearls; and whilst the contented and apathetic Singhalese in the villages and forests of the interior passed their lives in the cultivation of their rice lands, and sought no other excitement than the pomp and ceremonial of their temples, the busy and ambitious Mahometans of the coast built their warehouses at the ports, crowded the harbour with their shipping, and collected the wealth and luxuries of the Island, its precious stones, its dye-woods, its ~~spices, and ivory~~ to be forwarded to

same Mahommedan traders do not seem to care to mention the coconut or arrack, and for good reasons. The celebrated traveller Marco Polo, about 1300 A.D., speaks of the people in some parts of Ceylon as having for "their drink coconut toddy" or "wine drawn from trees."* This use of the palm is sufficient to explain why so little is made of it by the pious Buddhist writers of the *Mahāvamsa*, as also by Mahommedans, equally zealous in abstention from intoxicants.

To return now to the *Mahāvamsa*, we find that in chapter LXXIV. (page 214) the following passage occurs, giving the coconut a special position among the fruit-bearing trees planted by order of one of the greatest of Sinhalese kings :—

"He (Prākrama Báhu, 1164–1197 A.D.) also adorned both sides of the road with fruit-bearing trees, as the king-coconut, plantain, areca, coconut, and such like, and with water jars filled with bunches of beautiful flowers, and with many kinds of banners and flags, and with lamps, censers, and such like."

Then of another great king, much given to travel and to make his ministers travel too in order to keep such roads

China and the Persian Gulf." Again : "The Sinhalese mode of trading with the Chinese, Arabs, or Moormen long continued precisely the same as that adopted by the Veddas of the present day, namely by barter, the parties being concealed from each other, the one depositing the articles to be exchanged in a given place, and the others, if they agreed to the terms, receiving them unseen, and leaving behind what they give in return."

* Edrisi, the most renowned of the writers on Eastern Geography who wrote in the 12th century, in his account of Ceylon, mentions that the islanders cultivate rice, coconuts, and sugarcane; although the only exports he gives are precious stones, crystals, diamonds, and perfumes. A Chinese author so late as 1211 A.D., in speaking of the trade and products of Ceylon, only specifies "Cardamoms: cinnamon, coarse and fine; and mangrove." And even in 1611 the trading report is of cowries, cinnamon, pepper, gems, and elephants as obtainable in the Island. But may this indifference not be explained by the bulky nature of the nut, even when unhusked, and ignorance at the time as to any special value of the oil beyond its local use?

and bridges as then existed in repair—Prākrama Báhu II. (1240–1275 A.D.)—we find that he is said to have thought within himself, saying :—

“Great indeed his (Minister Dévapatirāja’s) piety, for once he prayed that he might become a Buddha, and planted a cocount, having earnestly prayed and resolved (that some sign should be shown him that his desire would be fulfilled), and lo, there opened up three buds from the three eyes thereof.” And the king ordered his minister (among other things)—“At the Bhímatittha Viháré, where the King Niṣṣaṅka planted an orchard, do thou likewise, in my name, lay out a large garden full of coconut and other fruit trees.”

Then as the outcome of the king’s thought it is recorded in the same chapter (14th verse) :—

“Thence this great minister proceeded to the port of Bhímatittha. And there he built a bridge, eighty-six cubits span, at the mouth of the Kalanadi* river ; one of about 100 yatthis† span at the village Kadalisenā ;‡ one of 40 yatthis span over the Salaggama§ river ; and one of 50 cubits span over the Salapadapa|| river. Thus did he build these and other bridges at divers places where it was difficult to cross over ; and likewise also he made numerous gardens and halls for preaching and the like, and did even give away much arms and hold feasts (in connection herewith).

“Afterwards this great minister of the king formed a large coconut garden, full of fruit and fine shade, and gave it the famous name Prākrama Báhu ; and it extended from the Bhímatittha Viháré (Bentota) unto the ford of the Kalanadi (Kalu-gaṅga), a space of about one yójana in width.

* The Black river, Kalu-gaṅga.

† A yatthi is equal to seven cubits of two spans to the cube.

‡ Kehelsen, Kehel-lenáwa !

§ Salgamu-gaṅga.

|| Salruk.

“And when he had caused the great forest Mahálabu-jagaccha* to be cut down altogether and rooted up, he made a fine village thereon and planted a large grove of jak trees near it.”

This shows that a coconut plantation was formed in the 13th century between Kalutara and Bentota “one yójana” or 12 English miles “in width” (really in length) along the coast as it extended from the Bentota Viháre to the ford on the Kalu-ganga. (The distance of the road between Bentota and Kalutara in the present day is a little more than 11½ miles.)

The next mention is in the 90th chapter, which is as follows: “He also gave for the benefit of that Piriveṇa a village named Salaggama near the bank of the river Gimha (Gin-ganga), and in that delightful village of Titthagama (Toṭagamuwa) he formed a grove with 5,000 coconut trees.” This was in the reign of Prákrama Báhu IV., who was surnamed Pandita Prákrama Báhu, whose seat of government was Kurunégala, and reigned in 1295 A.D.

There are two further references to the coconut in the *Maháwansa*; but as these are so recent as the 18th century, they will come in more properly into the second division of my Paper, which is to embrace Dutch and British times.

The slow progress made in the cultivation of a palm so pre-eminently beneficial, in purely Siṅhalese times, is no doubt accounted for by the seat of monarchy and authority being (for the most part) so far in the interior, and population congregated chiefly in the north-central and central districts, while the south-west coast was at that time comparatively sparsely occupied.† During several centuries, even after the important plantations formed by order of their kings, the Siṅhalese people, we may suppose, did not

* Mádeltasvanaya.

† King Prákrama Báhu sent in the 12th century to reduce the South of Ceylon.

do much to extend the cultivation of the coco palm beyond what might be needed for the supply of their own families. Indeed they had no object or special inducement to do so ; for the produce could not be carried very far inland (in the absence of roads) with the means of transport at their command, and there is no evidence to show that the nuts, oil, or arrack were exported much before the end of the 15th century. Still by this time we may take it for granted that not only the people on the south-west coast from Kalutara round to Dondra Head, but also many of the villagers farther north and farther inland had begun to realize the value of the coco palm. To Mudaliyár Simon de Silva, the learned Chief Translator to Government, I am indebted for references which bear out the view that coconut gardens had been formed by this time in the Western Province even up to the banks of the Kēlani-ganga. I append in a note the references given by the learned Mudaliyár to classical works other than the *Mahāvamsa*.^{*} A Chinese writer who describes Ceylon about the year 1413 A.D. writes of “the coconut which they have in abundance supplying them with oil, wine, sugar, and food.”† It must have been about this time that the enterprising Moormen who commanded all the foreign commerce began to turn the coconut to account. At first undoubtedly, being Mohammedans, they would have nothing to do with arrack as an intoxicating spirit, and not much was at the time known of the value of the oil, while

* 1. In the 71st and 76th verses of the *Girā Sandēsa*, a poem written in the 15th century, reference is made to coconut gardens in the Pānadurē and Kalutara Districts.

2. In the 107th verse of the *Paravi Sandēsa*, written about the same time, mention is made of a coconut garden beyond Balapiṭiya.

3. In *Kovul Sandēsa* references are made to coconut gardens in the Southern Province.

4. In the 42nd verse of the *Seḷalihini Sandēsa* of Toṭagamuwa, who flourished in the reign of Prākrama Bāhu VI. (1415 to 1467 A.D.), reference is made to coconut trees growing on the bank of the Kēlani-ganga.

† “Ceylon Literary Register,” vol. IV., 1889-1890, page 118.

the nuts were far too bulky a freight, in proportion to value, to be carried like cinnamom, gems, or silk all the way to Arabia or up the Red Sea for transport overland to Europe. But evidently a market nearer home, in the North-West of India was discovered; for, although the South of India may have had palms enough of its own* to make Robert Knox (160 years later) speak of the coconut as an Indian rather than Ceylon fruit; yet further up, beyond Bombay and along the Cambayan coast, the coconut produce of Ceylon found a ready market. This I gather from the very first experience of the Portuguese at Colombo recorded in Gaspar Correa's history of the doings of his countrymen in India and Ceylon during the first half of the 16th century.† For instance, we are told of Dom Lourenço de Almeida's arrival in 1506—that "as he entered the harbour there were many vessels (Moor) which were loading cinnamon and small elephants, in which there is great traffic to all parts, chiefly Cambaya, and in this port they were also loading green coconuts and dry ones, from which is extracted oil, and much *arequa*, all of which is much prized in Cambaya; also masts, yards, and planks, Ceylon having a great supply of good wood." Then later on we read that the Sinhalese king (then at Kótté) sent the Portuguese Commander "a present of provisions for the whole fleet, consisting of abundance of fowls and figs (really plantains) and coconuts, which are all eaten with the shell on, and sweet oranges and lemons (limes)." And on Lopo Soares' departure in 1518, as a farewell gift, the king sent him "six rings of sapphires (worth 1,000 cruzados) and six small elephants (a fathom in height, easily shipped), with great abundance of eatables for the fleet, and especially so many coconuts that they piled

* That there were many coconut palms in Malabar when the Portuguese came to India we know from Varthema (1510) and Barbosa (1516), both of whom call the coconut *tenga* (Malayalam). See *Hobson-Jobson*, s.v. "Coco." —D. W. F.

† "Ceylon Literary Register," vol. III., 1889. page 133.

on the shore those that each inclined to load, and even then there were many over.”*

The next reference we need quote is from the record of his experiences by the first Englishman who visited Ceylon. This was Ralph Fitch, who touched at Colombo in March, 1589, on his way from Bengal to Cochin, and who reports in the account of his travels: “This Ceylon is a brave land, very fruitful and fair; but by reason of continual war with the king thereof, all things are very dear. The provision of victuals for the Portuguese cometh out of Bengal every year.” He speaks of the people as “black and little,” and adds: “Their houses are very little, made of

* In “The Thousand and One Nights” or “Arabian Nights’ Entertainment” (Lane’s translation), written about 1475–1515 A.D., there are some amusing references to coconuts, no doubt gained from the experience of Mohammedan travellers in previous centuries. One occurs in the “Fourth Voyage” of Es Sindebad of the Sea, where he and companions got cast away among “a magian people” whose king was a ghoul, eating human flesh: in addition to bringing strange food to fatten and stupefy them, they gave them “coconut oil” to drink, and also anointed their bodies with the oil, and all perished save Es Sindebad, who loathing, could not eat this food, and who got so emaciated as not to be worth the eating. Secondly, in the “Fifth Voyage,” after his experience of “The Old Man of the Sea,” on getting to the City of Apes, he was befriended by a man who gave him a bag to fill with pebbles and to go forth with a party, all similarly laden, to a wide valley having lofty trees which no one could climb, and also many apes which at the sight of the strangers ran up the trees, evidently coconut palms. For, on the men pelting the apes with the stones, the apes responded by plucking off the nuts and flinging them at the men, and in this way the latter collected a great quantity of coconuts: and Es Sindebad did this for many days until he was able to sell a large quantity of nuts. “the price of which became a large sum in my possession.” (To do this, the price must have been very different from that recorded for the Maldives 100 years later of 400 coconuts per *larin*, or equivalent of 8*d.* sterling.) This country from the context must have been the Malay Peninsula or Sumatra; for, in returning to the Persian Gulf it is told they passed “by an island in which are cinnamon and pepper”—evidently Ceylon. And in the next or “Sixth Voyage,” Es Sindebad, after an extraordinary fashion, came to “Sarandeeb” (the Arabic name for Ceylon), which he describes as to situation and area very fairly, and mentions much about its minerals and gems and lofty mountains and trees with spices, but not a single reference to coconut or any palm all the time he was there; while, finally, the king sent him away with rich gifts (gems, &c.) to his own king, Kaleefah Haroun Er-Rashud.

the branches of the palmer or coco tree, and covered with the leaves of the same tree."

In view of the export trade in coconuts which the Portuguese discovered immediately on their arrival, in view also of the abundance of coconuts gathered no doubt from gardens in the Kótté and adjacent districts along the Kełani-ganga, nay probably from the neighbourhood of Colombo itself—while we know that the coast from Kalutara to Galle and on to Dondra Head was covered with the palm 400 years ago, as it is to-day—it is most astonishing that there is little or no mention of the coconut by the otherwise full and careful Portuguese writer Ribeiro, whose manuscript was presented to the King of Portugal in 1685. The areca (betel-nut) and talipot palms are freely mentioned; but the coconut scarcely at all. This would seem to show that the Portuguese never had much export trade in coconut produce;* that they esteemed it as of less importance than cinnamon bark, and the arecanut—both, of course, much more valuable at the time, in proportion to bulk, a matter for consideration in days when the biggest of their ships (small brigs and barques) would be deemed unequal even to a coasting trade in the present day. In the account of the arrival of the Dutch Admiral J. van Spilbergen off the south-east coast of Ceylon in 1602 it is mentioned that as they approached a bay they "found a great grove of coquos trees;"† and the French traveller Pyrard (1601–1605) gives a very full description of the coconut palm and its different products.‡ while he also reports having seen as many as 100 ships loaded with coconuts at the Maldives

* On the other hand, Barros, describing Ceylon (III., II., i.), says:—"It has great palm groves, which is the best inheritance of those parts; because, besides the fruit thereof being the common food, these palm trees are profitable for divers uses; of which food, called coco, there is here great loading for many parts." In III., III., vii., describing the Maldives, he treats at length of the coco and its uses. See also Linschoten, chap. 56 (partly taken from G. da Orta).—D. W. F. [Doubtless the shipments were for Indian and other Asiatic ports and not for Europe.]

† *Query*. Arugam Bay. see "Ceylon Literary Register." vol. VI., p. 316.

.. Ceylon Literary Register." vol. V., 1890–1891, p. 300.

(doubtless for Cambay and Persian ports); while 400 nuts were in these islands sold for a larin, a coin of about 8*d.* sterling or 50 cents of our rupee in value. (The Maldives have maintained a continuous export trade in coconuts—as their staple product—for, probably, 500 to 600 years at least. Percival records how early in the past century a ship from the Maldivian Islands touched at Galle, which was entirely built, rigged, provisioned, and laden with the produce of the coconut palm.) Although such a Portuguese authority as Ribeiro took so little notice of the coco palm, we know from other contemporary writers that its cultivation was, by the beginning of the 17th century, attended to round many villages in the interior as well as on the coast. An interesting reference to this period is found in the diary of a Jesuit priest (Father Manoel Barradas) who travelled in 1613 with other priests as far inland as Seven Kóralés.* They were welcomed at several towns and villages, notably at Mattégama,† “capital of the Seven Corlas” (then an important town, “10 leagues from the coast,” apparently situated about two miles from Giriulla between the Mahá-oya and Deyahandula) with decorations along the roadsides “of tender leaves of palms, hanging at one place and another cocos and bunches for those of our company to help themselves to them at their will,” and so at some other villages on their way back to Madampé and Chilaw; but it must be noted that there is no mention of the palm growing at Madampé, Kalpitiya (Calpentin), or Maññár at that time. It is of further interest to quote two passages from this Jesuit writer referring, first to coconut palms at Colombo in 1613, and secondly to palms generally in the Island:—

“As the Portuguese in the time of the kings of Ceilaõ possessed nothing outside the walls, on account of sieges being frequent, the same city served them as a palm-grove,

* See “Monthly Literary Register,” vol. IV., 1896, page 129 *et seq.*

† Mattégama, in 1613 the then capital of Seven Kóralés and “a large town well laid out in streets,” is now a poor little village, the change being possibly due to its malarious situation.

there not being a palm therein that had not been planted, even on the hill,* above the stones, as is even now seen ; and the goodness of the soil and its coolness allows of all this. So that even now, after their being cut down (and they are going on every day cutting down many palm trees), the least that is visible is the city. This makes it a little sombre and melancholy, although inside it is becoming beautified with many and good dwelling-houses which look like palaces ; and outside with many country-houses which have been and are being built with splendid houses and large enclosures ; and they are already getting near to the river Calane, which is close upon a league."

Again : "There are in Ceilaō all the varieties of palm trees that are distributed over the other parts of India, to wit, the White Trefolins,† the Cajurins,‡ Nipeiras§ or Date-palms, but these wild ones ; because though they yield fruit it is not fit for food. There are the Talapates, which bear a leaf so large, and united after the manner of the bat's wing, that of one alone is made an umbrella which can shelter three or four persons together from the sun and the rain. There are lastly the cultivated ones, which bear such large cocos that they are two and a half spans in circumference, particularly in Mateigama. Among the cultivated ones there is one variety in Ceilaō which is not found in any other place ; nor have I heard it spoken of until now. In our Castle of Columbo there is a palm tree whose bark, leaves, new and old, fruit in little lanhas|| and afterwards cocos, always have a yellow colour, like that of gold;¶ and it may well be that

* St. Sebastian.—D. W. F.

† Kitul?—D. W. F.

‡ Areca ?—D. W. F.

§ See *Hobson-Jobson*, s. v. "Nipa." The *Nipa fruticans*, not the Date-palm, as the writer seems to imply.—D. W. F.

|| Vieyra's Port. Dict. has "Lanha, s. f. (in Ethiopia), the fruit of the cocoa tree when it is tender and green." I do not know what the origin of the word is ; but cf. Sigh. lá, unripe, young, immature. From Tannilan-káy = unripe fruit.—D. W. F.

¶ The "King-coconut" is, of course, referred to.—D. W. F.

this is the branch of which the poet speaks: *Aureus et simili frondescit virga metallo*. I say this, because Virgil says of it, that it was the offering of Proserpina: *Hoc sibi pulchra suum ferri Proserpina munus instituit*. And of these palm trees, which many call royal from the beauty of the colour, but of which the Father Nicolao Paludano, of our Company, who travels about those parts, writes that with more reason they might be called *Luceferinas*, since the fruit is used by the heathen Chingalàs only for offering to the devil."

There is also a reference by this Jesuit priest to "Canals"—forty years before the arrival of the Dutch—which is worth quoting, though of no bearing on our immediate subject:—

"Near Columbo the Fathers embarked on a canal* by which they entered into the river Calene, and going down the river they proceeded into another canal as narrow as shady, so that the oars, although they were very short, could scarcely fulfil their office, and for a good distance the trees which intertwined their branches served them as a protection from the sun, until they came out into some level cultivated fields over which it was pleasant to the sight to gaze. By this they went as far as Negumbo, which is six Chingalà leagues. This canal was artificially made by the king when he was at war with the Portuguese; because the principal internal trade of the Island being by the river Calene, and its mouth being near Columbo, our people easily stopped it by sea; wherefore he diverted it by means of this canal, which is of no little convenience."†

This shows that canal communication between Colombo and Negombo was established by a Kandyan king (probably Don Juan Dharmapala, 1542–1584) long before the time of the Dutch, who usually get the credit of all our canal systems in Ceylon.

* St. John's Canal, probably.—D. W. F.

† The Mutunájawila is doubtless the canal referred to. I do not know who was the king who constructed it.—D. W. F.

There is not much more to learn respecting coconut cultivation in the time of the Portuguese; and yet there is one reference dating from 1644-1649—seven to nine years before their final expulsion by the Dutch—which goes to show that if not valued by the historian or foreign merchant, the supreme importance of the palm as a food producer was duly recognized by the Portuguese occupants of the Island. We quote from Johann von der Behr's account of his experiences in Ceylon from 1644 to 1649* (he was a Cadet in the Dutch Service, and was attached to an invading army). It is where he describes the landing at Negombo and an island in front of it "on which stand more than 3,000 cocos or kochers trees," each tree bearing ten, twenty, or thirty small and large nuts, and later on he adds that from the branches, &c., of the palms, houses were made to accommodate 600 of the troops. The palm was for all uses, and he adds that "the Portuguese esteem the tree very highly, and say that if one shot a bullet through a tree and struck the heart (in consequence of which it would dry up) it was as if he had put a man to death."

Baldæus in his account of Ceylon, printed in 1672, should be able to show how the south-west and especially the north of Ceylon stood for palms at the time the Dutch arrived. He gives a very particular description of the different divisions, parishes, and churches in the Jaffna peninsula and islands; often refers to gardens with "Indian fruits" and "delicious vineyards," but seldom mentions the coconut. Of Maññār island, he only tells us it abounds in fish, so that here, as at Negombo, is a great industry in drying and sending large quantities to other parts. He refers to the fertility of the Mántoṭa district in rice crops, and to the great mischief done by elephants which used to cross the river (lagoon) into Jaffna to feed upon the fruits of the palm trees, knocking these trees down. Recurring to the Jaffna churches, we are told of those at Changane, Paneteripo, and

* "Ceylon Literary Register," vol. VI. 1891-1892, page 82.

Batticotta as having behind “an orchard of cocoe and Portuguese fig trees, besides potatoes, bananaes,” &c. Patchiara-palle was much infested with elephants, “by reason of the vast quantity of wild palm-trees* that grow here and afford food to the poorer sort of inhabitants, though the elephants threw down some hundreds every year, being very greedy after the fruit when it comes to maturity.” This could scarcely be the coconut—evidently the palmyra. But in chapter XLVII., in referring generally to the people of Jaffna and the climate, Baldæus makes a statement which shows that to some extent at least the people cultivated coconuts. He mentions the eight months of dry weather when perhaps rain only falls three times, “which is the reason that they are obliged even to water the coco trees till they are six years old,” and he afterwards refers generally to “Cocoës” in Ceylon. As regards the neighbourhood of the capital, here is a curious paragraph from Baldæus, referring to the beginning of the siege of Colombo: “The following day a certain Portuguese prisoner was brought into the camp; he was sent from *Milagre*, and had lived fourteen days upon grass and herbs in the woods.”† This would seem to show there were no coconuts in the woods near Milagraya, and indeed we know Governor Van Imhoff in the next century had jungle felled along the route from Colombo to Kalutara in order, under the rules of *rajakâriya*, to have coconuts planted by the villagers.

We can now sum up the position of the coconut palm in Ceylon about the middle of the 17th century, when the Portuguese occupation of the Maritime Provinces came to an end. In the first place we may venture to say that the cultivation was almost entirely confined to the south and west of the Island. There is little evidence of the coconut palm growing along the eastern coast, at any rate above Arugam Bay

* This is one of the translator's errors. The original has *palmeer* = palmyra.—D. W. F.

† See also chap. XXIV., under 19th October

(Pottuvil) or Batticaloa ; and there cannot have been many gardens of palms in the north. Robert Knox on his escape in 1679 gives an account of the products of the “ Malabar ” country through which he had passed to the north-west coast, and of which he had learned by observation and report. He says : “ The commodities of this countrey are elephants, hony, butter, milk, wax, cows, wild cattel : of the three last great abundance. As for corn, it is more scarce than in the Chingulays countrey ; neither have they any cotton. But they come up into Neure Caulava yearly with great droves of cattel, and lade both corn and cotton.”*

From an account of the Jaffna peninsula in the Dutch times, when there were 150 villages (many more than in the time of the Portuguese), we learn these were all in the north of the peninsula ; for in the south forests prevailed, full of elephants and other wild beasts ; and so numerous and bold were the elephants that two of them waded across a lagoon near Jaffna and appeared in the streets of the town about the year 1660. We gather from this (and Baldæus) that the coco palms then cultivated were confined to certain villages in the north of the peninsula and a few in the islands. The palmyra was probably much more common. We take it, further, that up to this time the coconut had not been planted (unless a few here and there) at Maṇṇār, Kalpiṭiya, Puttalam, or Chilaw—indeed very few north of Negombo. Probably the Mahā-oya may be taken as the northern limit on the western coast ; although farther inland the coconut palm was found around villages north of that river, in the Seven Kóralés, and generally near all villages throughout what is now known as the Western Province. At the same time, we cannot suppose—seeing what afterwards happened in the time of Van Imhoff—that there was much cultivation between Colombo and Kalutara. There were certainly some gardens near Colombo, more particularly in the direction of Kótté and the Keḷani river as far inland as Sítawaka,

* Page 356, Robert Knox’s “ Historical Relation.” edit. 1817.



80°

81°

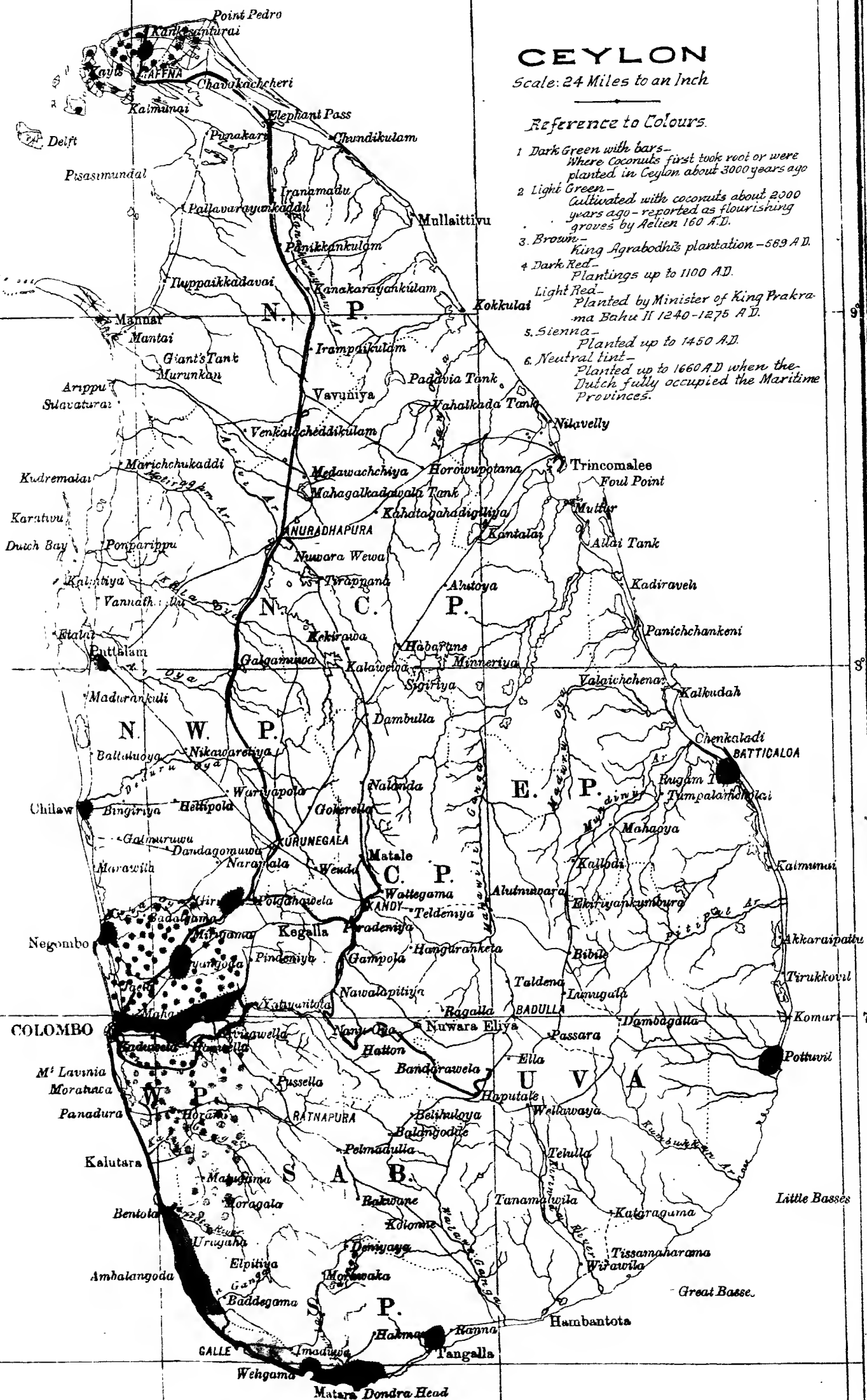
82°

CEYLON

Scale: 24 Miles to an Inch

Reference to Colours.

1. Dark Green with bars—Where Coconuts first took root or were planted in Ceylon about 3000 years ago
2. Light Green—Cultivated with coconuts about 2000 years ago—reported as flourishing groves by Aelian 160 A.D.
3. Brown—King Agrabodhi's plantation—589 A.D.
4. Dark Red—Plantings up to 1100 A.D.
- Light Red—Planted by Minister of King Prakrama Bahu II 1240-1275 A.D.
5. Sienna—Planted up to 1450 A.D.
6. Neutral tint—Planted up to 1660 A.D. when the Dutch fully occupied the Maritime Provinces.



but the great continuous extent of planting of which we are quite sure was from the Kalu-ganga, southward to Bentota, and from thence to Galle and on to Weligama, Matara, and on to Dondra Head. At the same time it is unlikely that this belt extended far inland, save where village topes or gardens broke the continuity of the jungle or chena land. The map which has been prepared through the courtesy of the Surveyor-General and of Mr. Templeton of his staff, and to which we now call your attention, indicates by different colourings the successive stages in the advance of coconut planting in Ceylon, so far as we are able to judge, from the information and authorities laid before you. We begin with a small patch of dark green colour with bars round Weligama, indicative of the spot where the earliest nut or nuts floated ashore from Sumatra, took root in the sand and gave Ceylon its first coconut palm, perhaps 3,000 years ago. There must have been a good deal of planting of the nuts in the neighbourhood and at intervals in the country towards Galle long before King Agrabodhi, according to the *Mahāwamsa* in 589 A.D., gave the order to form a plantation from Weligama to Dondra. For, as already mentioned, the Roman writer Ælian about the middle of the 2nd century of the Christian era, or say 160 A.D., mentions on the authority of travellers that the coast about Galle was covered with waving coco palms, and further he records the notable fact that the palm trees grew *in regular quincunxes as planted by skilful hands in a well-ordered garden*. So we give in a second colouring (light green) a sweep of country that must have shown palms to voyagers up to 500 A.D. Then comes the historical planting of King Agrabodhi, 589 A.D., coloured brown by itself, and equally distinguished is the plantation ordered by King Prākrama Báhu II. along the twelve miles of country between the Kalu-ganga and Bentota, between 1240 and 1275 A.D., the colouring being light red. Before this time, however, there was planting (about 1100 A.D.) between Ambalangoda and Bentota, for which we have put in a dark red colouring. About the same period, or a little later, there were also certain roadside

plantings of fruit trees (including the coco palm) by orders of King Prákrama Báhu the Great; but it is impossible to say with what success, especially as regards palms. Undoubtedly such kingly attention to this most useful of tree food-producers must have acquainted the people throughout many villages and districts with its value, and accordingly from the 13th century on to the middle of the 17th, when our observation closes for the present, the Singhalese throughout the low-country of the south-west, between Dondra Head and the Mahá-oya river, and in villages perhaps ten, twenty, or even thirty miles inland, as in Three and Seven Kóralés, became more and more alive to the value of a palm which so variously ministered to their comfort, entering into every part of their life as food, drink, light, fuel, household utensils, and building materials. We have accordingly added a sixth distinct colouring in sienna, for villages north of the Kalu-ganga in the Western Province, near Kótté, Colombo, along the Kēlani-ganga, indicating gardens planted up to 1450 A.D.; and finally the seventh colouring (neutral tint) covers planting done between the middle of the 15th and 17th centuries (up to 1660 A.D.), north of the Kēlani-ganga, about Negombo, in Seven and Three Kóralés, in a few gardens in the north of the Jaffna peninsula, and at Tangalla, Pottuvil, and Batticaloa. The wars which raged almost continuously for 150 years between the Singhalese monarch and the Portuguese must have sadly interfered with agricultural progress of any kind; and there was not the same strong inducement of a keen foreign demand which prevailed in the case of cinnamon and arecanuts, to induce a large export trade in coconut products. This trade indeed did not attract much attention till towards the end of the Dutch* and beginning of the British rule,

* I learn from Mr. Anthonisz, Government Archivist, that in the Instructions left for his successor by Governor Ryklof van Goens, in 1675, no reference is made to any trade in, or revenue from, coconuts, oil, coir, or arrack: although full mention is made of arecanuts, pepper, rice, elephants.

notwithstanding the enterprise of the Moormen traders as shippers of nuts to Cambay and Persia so early as the 14th to 15th centuries. At the beginning of last century the estimate was that there were 10 millions* of coconut palms in Ceylon. One hundred and fifty years earlier a safe estimate would in our opinion be about 8 to 8½ millions; for, we do not think there was much extension of cultivation by the people in the latter end of the 17th and 18th centuries, for reasons which will be given in our second Paper covering the Dutch and British periods to date. As centuries rolled by, it must be remembered there was always work for the people

and especially cinnamon. Twenty years later, by the year 1695, however, the Dutch rulers had discovered some value in coconuts as a source of revenue; and Jaffna cultivators were specially exempted from the coconut tax, because they supplied the leaves of the palm to feed the elephants belonging to the Government. But all this, with other interesting extracts Mr. Anthonisz can give from Dutch archives, belongs rather to the second part of my Paper.—Since writing the foregoing I have come across an Order in Council of the Dutch Executive in Ceylon, dated May, 1669 (translated by the late R. Van Cnylenburg, Esq., in a Paper for this Society's Journal, 1874, part I., page 69), which runs as follows:—"May, 1669.—The Council finding that the coconut plantation at Soute Tangh yields a revenue of not more than 1,260 rix-dollars per annum, against an outlay of 620 rds. per *mensem*, resolve on renting it out to the Burgher Louis Trumble (see Valentyn. *Ceylon*, 245) at 900 rds. per annum from the 21st Jnne next to the end of Febrnary, 1671." The Government Archivist, Mr. Anthonisz, tells me that "Soute Tangh" must be a sort of hybrid equivalent (half Dutch, half Portuguese) for "Tanque Salgado," situated at Mtwal. Mr. Anthonisz writes: "*Tanque Salgado* is Portuguese for salt pond. The name is now applied to a pretty large tract of land in the northern suburbs of Colombo, below Fisher's Hill. It is evident the Portuguese either found such a pond, or made one, in the spot after their arrival here. But all traces of a pond have, I believe, now disappeared. In the oldest Dutch records the name is applied to a hamlet with a large population. I find it mentioned in a 17th century school thombn with other hamlets in the neighborhood, such as *Horta Padre* (Priest's Garden), *Horta Juan Swaris* (Juan Swaris' Garden), *Goenswyck* (Goen's Retreat), *Horta Cadirane*" (Garden of Cadirane), &c. All the names are Portuguese except Goenswyck, which is called after the Dutch Governor Rycklof van Goens."

* Bertolacci in 1815.—Our estimate at the present time (1906) for all Ceylon is that there must be about 60 millions of coco palms growing of all ages and conditions.

in replanting the area already occupied; for, although the coco palm is exceptionally long-lived, no one has ventured to put its productive bearing age at more than 100 years.

DISCUSSION.

9. HIS EXCELLENCY THE GOVERNOR invited remarks on the Paper.

Mr. C. M. FERNANDO referred to the archæology of the coconut. He would distinguish between the coconut of commerce and the special variety known as "the King coconut," a rarer and more precious variety, which was used for medicinal purposes. It was probably "the King coconut" that had attracted Kusta Rája's attention and cured him of his skin disease. The coconut was probably very much older in Ceylon. There was a Ceylon before Vijayo, just as there was a Rome before Romulus, and Generals before Agamemnon, and the coconut palm was probably much older than Kusta Raja. He said the Mahabárata and the Rámáyana mentioned the coconut palm, and the latter referred to its existence in Ceylon.

Mr. FERGUSON pointed out that his argument was not at all based on the legend of the Kusta Rája; but that, according to the great authority of De Candolle, the dispersion of coconuts from Sumatra probably took place about 3,000 years ago.

Mr. HARWARD instanced the frequent way in which legends were created to account for misunderstood facts, and thought that Kusta Rája and the legend with him was probably of similar origin. He quite agreed with Mr. Fernando that there was a civilized Ceylon before Vijayo's time; and considering how much Ceylon was visited by traders from the North-West and Far East in very early times, he did not think the floating theory was necessary to account for the coconut being transferred and planted here.

HIS EXCELLENCY THE GOVERNOR said that, before moving the vote of thanks, he felt it incumbent upon him as an archæologist to say a few words on the question raised by Mr. Fernando and Mr. Harward, and, after humourously referring to the very old legend of Ixora turning the head of a man into a coconut, as related in a note to the learned Paper before them, His Excellency proceeded:—Ladies and gentlemen, there is a very pleasant duty which devolves upon me, that of proposing to you a most hearty vote of thanks to our friend Mr. Ferguson for the treat that he has given us this evening. It is not often that the Society has such a treat as a Presidential Address, so teeming with most instructive matter, and at the same time a Paper by the same gentleman, so learned and full of interest as the Paper to which we have just listened.

In his Presidential Address Mr. Ferguson alludes to Polonnaruwa and the work that is being done there. Undoubtedly an immense amount of excellent work is being done at Polonnaruwa under the supervision of Mr. H. C. P. Bell. The excavations of the ruins have been suspended for a short time for the express purpose of enabling the Archæological Commissioner to make up his notes and bring his literary work up to the present time. It was impossible for him to continue the compilations of his work and at the same time carry on excavations, considering how extremely close personal supervision must be maintained by the archæologist over the work of excavation.

I was at Polonnaruwa not long ago, and while looking for one of the ruins, we lost ourselves in the woods. We wandered about for four hours and traversed several miles, and during the whole of that time we never took our feet off bricks which formed part of the buildings of the ancient city. That city must have extended over many miles, for, wherever we went, wherever we turned, we always found bricks, evidence that the place had been built over in the years gone by.

Mr. Ferguson has mentioned the zoological collection here. Well, ladies and gentlemen, there is a great difference between the very interesting collection in question and a really well-equipped zoological garden. But, in order to establish a zoological garden, one has to enter upon a very large expenditure. The matter was fully gone into last year and the year before. We found that the expenditure would be very great: and there were strong objections from many people against a large zoological garden being established in the vicinity. On the whole, I came to the conclusion that the present collection had better be left to the tender care of Dr. Willey to extend in due course, rather than to take his pets and place them in a zoological garden, where they might perhaps not be cared for and looked after as well as they are at the Museum.

There is one matter which struck me when Mr. Ferguson referred to the various directions in which Ceylon is advancing at the present moment. I was reminded of an interesting fact, a fact which is very complimentary to the Colony and its reputation for progress. To-day I had a letter from the Government of a Southern Colony. The letter informs me that they had come to the conclusion to help education there by giving two important scholarships on the results of their annual examinations; and having considered what was best to be done with those scholarships, they came to the conclusion that the soundest education for the boys would be to send them to the Technical College in Ceylon, and they asked me to give them information regarding the work of the Technical College, the fees, &c. The fact that such a decision has been arrived at by the Government of a Southern Colony is, I think, a very great compliment to this Island; and also, to a certain extent, an answer to some of the objections which people make from time to time against the work of the Ceylon Technical College.

Now, ladies and gentlemen, I have no doubt whatever that you will respond with acclamation to the proposal I make, to accord a hearty vote of thanks to the President, the Hon. Mr. Ferguson, for the admirable Address he has given us, for the interesting Paper on the Coconut with which he followed the Address, and for the pleasure with which we have listened to Mr. Ferguson.

VOTE OF THANKS TO THE PATRON.

10. The Hon. Mr. S. C. OBEYESEKERE proposed a vote of thanks to their Patron, His Excellency the Governor, for the encouragement which his presence had given them. His Excellency had had an arduous day—a journey from Veligama, a busy meeting of the Legislative Council, and the business of the Colony—and it was a proof of his extreme interest in the Society that he was able to be there in spite of all.

Mr. FERNANDO seconded.

The PRESIDENT heartily supported the vote. In the Society's past records the name of Sir Arthur Gordon ranked foremost among Governors for the interest he took in the Society; yet, short as Sir H. A. Blake's term had so far been, he had already eclipsed the previous record by the warm personal interest His Excellency took in the Society, and his very frequent presence at their Meetings.

The vote was carried with applause.

GENERAL MEETING.

Colombo Museum, August 6, 1906.

His Excellency Sir H. A. Blake, G.C.M.G., Patron, in the Chair.

Present :

Mr. R. G. Anthonisz
 Mr. T. P. Attygalle, J.P.
 Mr. C. Batuwantudawe, Advocate
 A. K. Coomaraswamy, D.Sc.
 Mr. Peter de Abrew
 Mr. W. A. de Silva, J.P.
 Dr. W. H. de Silva, F.R.C.S.
 Mr. C. M. Fernando, M.A., LL.M.
 Mr. A. M. Gunasekera, Mudaliyar
 Mr. I. Gunawardana, Mudaliyar
 Mr. D. B. Jayatilaka, B.A.
 Mr. P. D. Khan
 Mr. S. B. Kuruppu, Proctor
 Mr. G. B. Leechman

Mr. P. E. Murgappah
 Dr. A. Nell
 Mr. J. P. Obeyesekera, Advocate
 Mr. P. T. Pandita-Gunawardana
 Mr. E. W. Perera, Advocate
 Mr. P. E. Pieries, M.A., C.C.S.
 Mr. R. C. Proctor
 Mr. F. C. Roles
 Mr. E. S. W. Senáthi Rájá, Advocate
 Mr. G. W. Sturgess, M.R.C.S.V.
 Mr. F. A. Tisseverasinha, Proctor
 Mr. G. E. S. S. Weerakoon,
 Mudaliyar

Mr. G. A. Joseph, Honorary Secretary.

Visitors : 13 ladies and 24 gentlemen.

Business.

1. Read and confirmed minutes of last General Meeting held on March 16, 1906.

2. Mr. Joseph announced the election of the following Members since the last General Meeting :—

LIFE MEMBER.—Don Solomon Dias Bandaranayaka, C.M.G., Maha Mudaliyar.

ORDINARY MEMBERS.—Dr. J. W. S. Attygalle, M.B., C.M. ; Mr. G. Gardner ; Mr. F. A. Tisseverasinha, Proctor, S.C. ; the Hon. Mr. A. Kanagasabhai ; Mr. J. P. Obeyesekera, Advocate ; Mr. G. D. Templer ; Mr. P. Tudave Pandita-Gunawardana ; Mr. G. W. Sturgess, M.R.C.V.S.

3. Dr. A. K. Coomaraswamy spoke on the following Paper by him, instead of reading it :—

SOME SURVIVALS IN SINHALESE* ART.

By ANANDA K. COOMARASWAMY, D.Sc.

I BEGAN the study of Kandyan arts and crafts and the kind of life that lay behind them, having a little knowledge of the art and life of mediæval England, but not much of early Indian life and art. I found that life in the Kandyan Districts a hundred years ago resembled in many ways the life of mediæval Europe, and one may gather from what remains of the social organization of that time a more vivid realisation of mediæval England than years of study in England alone would give. Thus, the village communities were still to the fore a hundred years ago, largely democratic and communistic in principle; in other respects, too, the *Nindagama* reminds one of an English Manor, the *Gama-rûla* corresponding to the Bailiff, and the *Vel-vidûna* or village headmen to the English *Præpositus*. Moreover, there was no class of free agricultural labourers working for hire; all land not owned outright was held on a service tenure. Although there was no approach to political equality, the security of tenure and general stability of social relations were very marked; the caste system upheld the former, for men of high caste could not and would not own or receive lands to which a low caste man's service was attached; and it produced the latter by removing the possibility of social ambition. The vast majority of people cultivated the soil with their own hands; that

* I use this term in preference to Kandyan, in order to avoid making unnecessary and misleading distinctions between different sections of the Sinhalese people; nevertheless most of my remarks apply only to the Kandyan districts, where alone Sinhalese art has been preserved in any quantity.

is still true even of the craftsman castes. The sight of many men working together in the fields or chenas and chanting over their labour recalls the “Faire feldeful of folke” of Piers Plowman. There was not much foreign trade, and that little was in the hands of Moorish *tavalam* merchants who brought their goods on pack bulls. The Sinhalese, though in part a nation of skilful craftsmen, have never been a “nation of shopkeepers,” and, like other Eastern nations, regarded it as a degradation to work for hire; wherein they did well, inasmuch as the hired labourer—whether an English farm labourer or a Civil Servant in India—can never have the absolute independence of a perfectly free man. Books existed only in manuscript form: even now a strange feeling of remoteness is felt when one hears that such and such a man owns some rare unprinted book of which perhaps few or no other copies remain. Then, too, hereditary craftsmen in many a prosperous village produced the beautiful and straightforward work of which no more than the wreckage now survives. So I was delighted by this revived image of the mediæval England that was known and dear to me.

But after a time I began to see behind these obvious survivals and analogies of mediæval times the traces of still earlier days—survivals from a remoter period—habits of thought and tricks of craftsmanship that must have been handed down from early Aryan times, and can be traced back to early work in Northern India, whence history tells us the “Lion race” of Ceylon actually came; and patterns whose history is even more ancient.

▲ We shall find that a study of the decorative forms surviving in Sinhalese art tends to support the historical account of the Sinhalese as a North Indian race, and of the subsequent intercourse between North India and Ceylon in the time of Aśoka. We may remark also that the Kandyan village economy differed very little in principle from the village economy of Northern India two thousand years ago (see Rhys Davids, “Buddhist India,” ch. 3, and Sir John Budd Phear, “Aryan

Villages in India and Ceylon"). Moreover, "the Bible and Homer and the Greek poets generally are full of idyllic scenes from the life of ancient Greece, Syria, and Egypt, which are still the commonplace of the daily life of the natives of India, who have lived apart from the corruptions of European civilization" (Sir George Birdwood). It will accordingly be obvious that all India and Ceylon are full of survivals of the past: but in the present Paper I shall try to trace only the history of some that are specially characteristic of Kandyan art. Sinhalese art and culture have an especial interest and value, for in them may be found a survival of the Aryan past and of the "Early Indian" or "Indo-Persian" artistic traditions more free from later Puranic and Mohammedan influence than anywhere in India itself. Ceylon is one of those islands (other such are Iceland and Ireland) which have preserved in considerable purity an earlier stratum of thought and an earlier artistic tradition than any surviving on the neighbouring continents. For this preservation of what is elsewhere lost we owe these peoples much, for otherwise the world would be vastly poorer in interest and ideals. I shall now proceed to a more detailed comparison of the characteristics of 18th century Sinhalese (Kandyan) art with the art of the Bharhut sculptures.

The sculptures of Bharhut are faithful pictures of North Indian life and thought—mainly Buddhistic, it is true, but essentially *Indian* none the less—in the second century B.C. The sculptures represent real Indian art at its purest and best before direct Greek influence affected figure sculpture, and will I hope inspire the "pre-Raphaelites" of the "Indian revival" of the future. Let us compare some of its minor characteristics with what may be seen in Kandyan mural paintings of the eighteenth century—*e.g.*, those at Danagirigala* and Degaldoruwa.† This comparison will be

* See Bell, "Report on the Ké-galla District," p. 43.

† See Lawrie, "Central Province Gazetteer," p. 137.

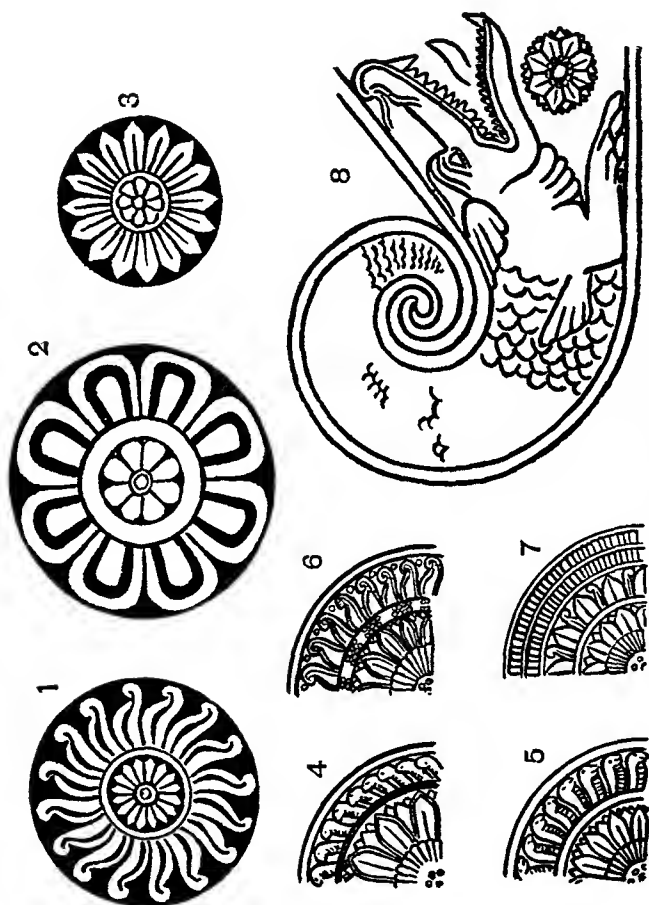
made in both in respect of general style and of technical peculiarities.

✓ All artists concerned primarily with *decorative* art are impressed with the necessity of filling evenly the space at their disposal, avoiding any undue appearance of relief, and emphasizing the decorative nature of the work. If we examine the Bharhut sculptures we shall see several examples of spaces occupied by sculptured lotuses, not an essential part of the design, but introduced to fill up the space and equalize the distribution of light and shade on the surface (see fig. 8 from Plate IX. of Cunningham's Bharhut Stupa). We find the very same lotuses used in just the same way in Kandyan paintings; these rosettes or lotuses are called *mala* (flower), and are put in here and there wherever an unsightly gap would otherwise occur; they have no organic relation to the rest of the picture (for examples see fig. 2 from Danagirigala and fig. 3 from Degaldoruwa)*. We may note in passing that similar rosettes are used in the same way elsewhere, as for example in early Greek painting (see Percy Gardner, "Grammar of Greek Art," fig. 45).

Amongst the lotus medallions of Bharhut which have parallels in mediæval Sinhalese work there are some in which the outer whorl of petals is replaced by cobra heads, all turned in one direction, right or left, around the centre (see figs. 4 and 5, Cunningham's Bharhut Stupa, Pl. XXXVIII.); in others the same forms can be recognized, but the cobra heads are so much more conventionalized that recognition would be difficult without the other type to guide us (see fig. 6 from Cunningham's Pl. XXXVIII.). It is worthy of note that the evolution from cobras' heads to purely conventional forms had already taken place at Bharhut; and the more conventional type alone survives in Kandyan art (see fig. 1 from wall paintings at Danagirigala; the same form occurs

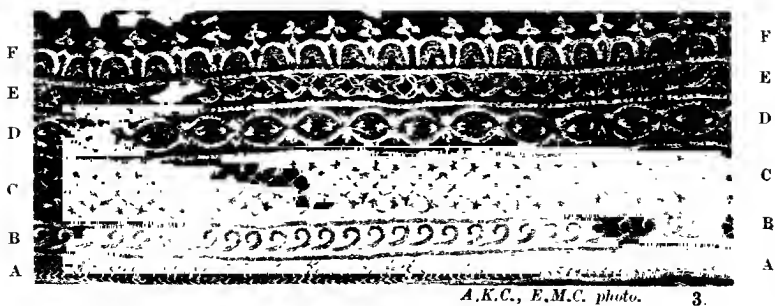
* See Lawrie, "Central Province Gazetteer," p. 137.

also at Degaldoruwa, Ridi Vihare, and elsewhere). The same conventionalized cobras' heads appear on a carved



Lotus ornaments, Bharhut & Ceylon.
1-3 CEYLON; 4-8 BHARHUT.

table in the author's possession and also in the border of an embroidered betel bag (Pl. I., fig. 3; see also fig. 17. It will



A.K.C., E.M.C. photo.

be seen later that a form almost indistinguishable from this is derived from a conventional arrangement of lotus leaves or petals (palmette) (see figs. 7, 9, 11, &c., and Pl. I., figs. 1 and 2), but these are arranged symmetrically about a central upright line, while the cobra-forms are forms found in a continuous series of similarly oriented elements (see figs. 4-6 and Pl. I., fig. 3B).

If now we compare the Bharhut sculptures and the Kandyan paintings as regards style and treatment of the subject matter, we shall find that the conventions of the ancient and modern artists are close akin. The ancient method of "continuous narration" is equally characteristic of each, *i.e.*, the story is told by repeating the same characters again and again in the same picture or panel, performing successively the actions proper to the story. The whole picture also is brought into one plane, and there is little or no attempt at perspective. A delight in almost microscopic detail, as for example in the delineation of costume, feathers on birds, and the like, is apparent in both schools. The representation of trees is very characteristic; the sculptured trees of Bharhut and the painted trees of the Kandyan vihara have much in common. In both cases the tree is unmistakable—not by reason of a naturalistic realism, but in consequence of the prominence given to the distinguishing features, the emphasis laid, as it were, upon the ideal form of the tree. It is not any particular tree that is drawn or carved, but a representation of the generalized image of the tree in the artist's mind, based on previous impressions gathered almost unconsciously from many such trees seen by the artist. It is difficult to imagine the artist drawing direct from the model, human or vegetable; his style is traditional and conventional and represents, not individual things, but the notion of such things in general formed in the artist's mind. The human interest of such work is very great. we see the world through the very eyes of the Bharhut and Kandyan people in a way that no impersonal and realistic representation would enable us to do. After all, this is the

aim of all art—to awaken in the beholder emotion kindred to the artist's own—

“ For, don't you mark, we're made so that we love
First when we see them painted, things we have passed
Perhaps a hundred times, nor cared to see ;
And so they are better, painted—better to us.
Which is the same thing. Art was given for that.”

We must not, however, think that these peculiarities of style in early art are deliberate ; they are just the natural result of the artist's attempt to picture things as he sees them. We may gather from such art, and from the art of Mediæval Europe, a notion of the Aryan workman's childlike seriousness and simplicity that cannot fail to touch us. On the other hand, we find in Mongolian, especially in Japanese, art what appears to be an original and spontaneous impressionism tending rather to superficiality than seriousness. The Aryan or Semitic artist drew what he knew or imagined, the Mongolian drew what he saw.

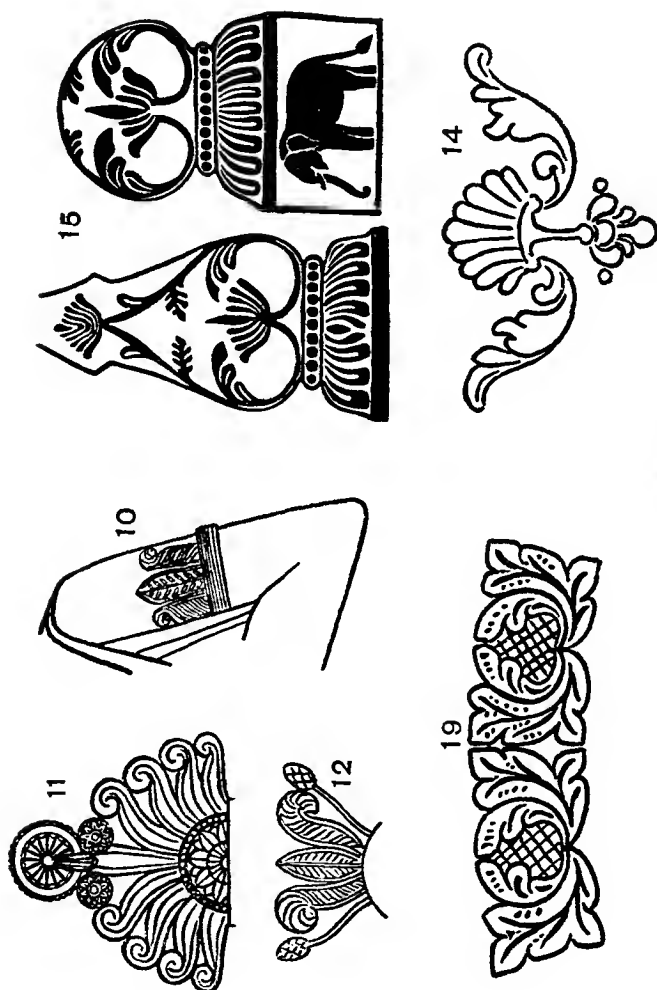
Things are otherwise amongst the civilized, sophisticated nations of modern times, where the artist is surrounded by examples of every sort of “ style,” and there can be no one national style appealing equally to all men ; nor is it possible that the realistic, or impressionist styles which most directly represent the tendencies of modern life in its mechanical and superficial aspects, can have the seriousness and calm to be found in the less conscious and often also less technically perfect art of earlier periods, when the social structure was not in a state of rapid evolution, but remained for long periods relatively stable. The modern artist then has to choose his methods with the deliberate intention of expressing himself in the particular way desired, and must use his mind and brain in *deliberately* avoiding what is unsuitable to his purpose or to the kind of work in hand. All this the primitive artist does unconsciously. Now that the Kandyan artist is no more, it is well to lay some stress on the survival, in eighteenth century work at least, of this absence of self consciousness, and the presence

of that serious idealism which appears to me to be associated with Indo-Aryan art in general.

All this has a bearing on the history of Sinhalese art. We have seen therein a survival of the conventions and ideals of the early Indian or Indo-Persian school; and now we may refer briefly to the Sigiri paintings (neither these, nor Kandyan mural paintings are really "frescoes") considered from this point of view. The Sigiri paintings are as different from the Kandyan in style as are those of Ajanta from the sculptures of Bharhut. The impressionist element in them is equally foreign to the art of Bharhut and to the art of the Sinhalese. We do not find in these paintings of Ajanta and Sigiri (in spite of the grace and elegance of the latter) that love of fine detail and appreciation of clear form and line that are seen in Kandyan paintings and Bharhut sculptures. These considerations alone appear to me sufficient to prove that the Sigiri paintings were not executed by "Kandyan" artists; it is impossible to believe that the Sigiri artists can have been either the lineal descendants of painters of the early Indian school, or the ancestors of those of the Kandyan school. I can hardly doubt that a school of mural painting existed at Bharhut, and that it was in style and feeling close akin to the work in stone (itself a replacement of earlier work in wood); and it is with some such early school of mural painting rather than with the work at Ajanta or Sigiri, the Kandyan paintings must be associated.

We must now return to the more detailed study and comparison of particular patterns. Perhaps the most striking survival that I know of is that of a particular type of armlet. On Plates 21-23 of Cunningham's Bharhut Stupa will be found figures of various male beings, wearing the heroic garb of India, viz., turban, shawl, and dhoti; all wear, beside other jewellery, a peculiar armlet (fig. 10), consisting of an ornamented band supporting ornamented flat plates shaped like a "Fleur de lys" or "Prince of Wales' feathers" ("palmette" ornament). Now, if we examine a beautifully

worked devil dancer's dress in the Colombo Museum (see Plate I., fig. 1), we shall find the very same type of armlet



Lotus, 'honeysuckle' or 'palmette,' and 'pineapple' ornaments, Bharhut & Ceylon.
10-12 BHARHUT ; 14, 15, 19 CEYLON.

embroidered on the sleeve. Such special resemblances in the minor details of costume support the conclusions derived from more general considerations.

The survival of a peculiar form of armlet is in itself significant enough; but the form of it raises the question of "palmette," or "honeysuckle" patterns, and the possibilities of Greekish influence. The "palmette" Greek honeysuckle is one of a series of decorative forms which have a very long and interesting history; including the "Fleur de lys" and the Renaissance "shell," they often alternate with another element in what are known as "knop and flower" patterns, for a short account of which the last chapter of Sir George Birdwood's "Industrial Arts of India" may be consulted. The earliest forms of these patterns are found in Egyptian art, the "Fleur de lys" lotus forms (see Flinders Petrie's "Egyptian Decorative Art"). The Grecian forms themselves are developments of borrowings from Egypt (or Assyria), through the Phœnians and Mykenæ; the early Indian and also the Sinhalese forms are likewise in the last analysis traceable to Egypt through Assyria. As to the date of the borrowing, it will be recalled that it is generally considered that writing was introduced into India from lemitic sources not long before Asoka's time, and it is reasonable to suppose that with the writing sculptured on stone, the associated decorative forms were also introduced. There is no necessity for postulating a direct Greek origin for any of these patterns, which would follow their own line of development from Egypt through Mesopotamia and finally into Persia and India; at the same time the possibility of Greek influence is by no means excluded, as there was, after the 6th and 7th centuries B.C., considerable intercourse between Greece and Persia and between Greece and Northern India in the time of Alexander. It is difficult to avoid regarding such a pattern as that shown in figure 17 as evidence of Greek influence; because it is a specimen of what the Germans call *fortlaufende wellenranke*, i.e., an arrangement of decorative vegetable elements on both sides of a continuous wavy line connecting them. Now this method of associating decorative elements on a continuous undulating stem is first met with in Mykenæan

decoration and was fully developed in the well-known Grecian forms ; but it is quite absent in Egyptian and old Oriental (Assyrian, &c.) decorative art. and so cannot have reached India by way of Assyria. It would be difficult to exaggerate the importance of its discovery and development, for it became of supreme value in Greek and Roman, Mediæval and Saracenic, and Renaissance art, and remains so still. It is typically developed at Bharhut ; it is also a characteristic feature in Sinhalese art, where it can be studied in the various creeper (*wela*) patterns, of which figure 17 is a single example selected on account of the obviously palmette character of the floral elements. I am inclined to regard this *wellenranke* as a specifically Greek element in Sinhalese art. and as we meet with it in the Indo-Persian art of Bharhut (Cunningham's Bharhut Stupa, plate XI.), to trace it back to intercourse between Greece and Persia anterior to the Christian era (see Perrot and Chipiz, "History of Persian Art," 1892, p. 492), or more probably to the period of Grecian influence in North India subsequent to Alexander's conquests about 300 B.C. This Greek influence could hardly have reached India before the departure of Vijaya, for the evolution of Greek decorative art had not progressed very far previous to the 5th century B.C. We have no remains to guide us as to the actual artistic capabilities of the Vijayan immigrants. who, by the way, are said to have been all of the cultivator caste. It is therefore reasonable to trace to the period of Asokan influence and the introduction of Buddhism, the introduction of whatever Greek elements are recognizable at Bharhut. It may be indeed that we should trace to this period the origin of most of the vegetable decorative elements in Sinhalese art. We are hardly in a position to say just what decorative art motifs the Vijayans may have brought with them or found amongst the aboriginal Yakkhas. At any rate we cannot doubt that with Asoka's missionaries (who are specifically stated to have been accompanied by craftsmen) and the resulting impulse to the erection of magnificent

buildings and their elaborate decoration, a new impulse was given to the indigenous arts, and new elements added to them; just as the Christian missionaries of St. Patrick's time spread a knowledge of writing in Ireland and replaced the purely native decorative art by an art based on the Byzantine.

We have finally a still later period of Greek influence to consider. In the early sculptures, representations of Buddha were quite unknown; early Buddhist artists represented the founder of their religion by symbols only.* The first figures of Buddha appear in the Gandhāra sculptures (by artists of what is known as the Græco-Buddhist school) in the extreme north-west of India. These works were executed between the 1st and 5th centuries A.D., while Buddhism still flourished in India; they show clean traces of Greek, Roman, and even Christian influence. "The ideal type of Buddha was created for Buddhist art by foreigners" (Grünwedel, "Buddhist Art in India"). These Gandhāra types were the foundation of all later representations of Buddha, whether in Burma, China, or Ceylon. It may be that some of the decorative patterns of the foreigners travelled with the new type of figure sculpture. But as most of the decorative motifs under consideration, as well as particular modes of associating them (*wellenranke*, &c.), are already found at Bharhut, it is unnecessary to assign their introduction to this later period of stronger classical influence. We may however safely say that whatever traces of Greek influence already existed were likely to be strengthened and reinforced at the later period of classical influence on figure sculpture. The latest period of indirect Greek influence on Indian art, viz., at second-hand through the Mohammedan conquests, left Ceylon, or at any rate the Sinhalese, untouched.

Before leaving the question of Greek influence, we may remark that it is possible to attach undue importance to the

* The *Mahāwamsa* account of the Ruanveli relic chamber cannot therefore be contemporaneous.

Greek patterns because we are more familiar with them than with those of the other nations of antiquity. As pointed out above, it is not the actual decorative motifs so much as certain modes of associating them that are traceable to Greece.

Before returning to Ceylon we may notice one other Indian example, viz., the decoration of the *lât* (1605 A.D.) at Allahabad (see fig. 13, from Ferguson's "Indian and Eastern Architecture"), as it shows, in addition to the lotus and palmette forms, the real and bead pattern which is also common in Ceylon (see Plate I., fig. 3 D).

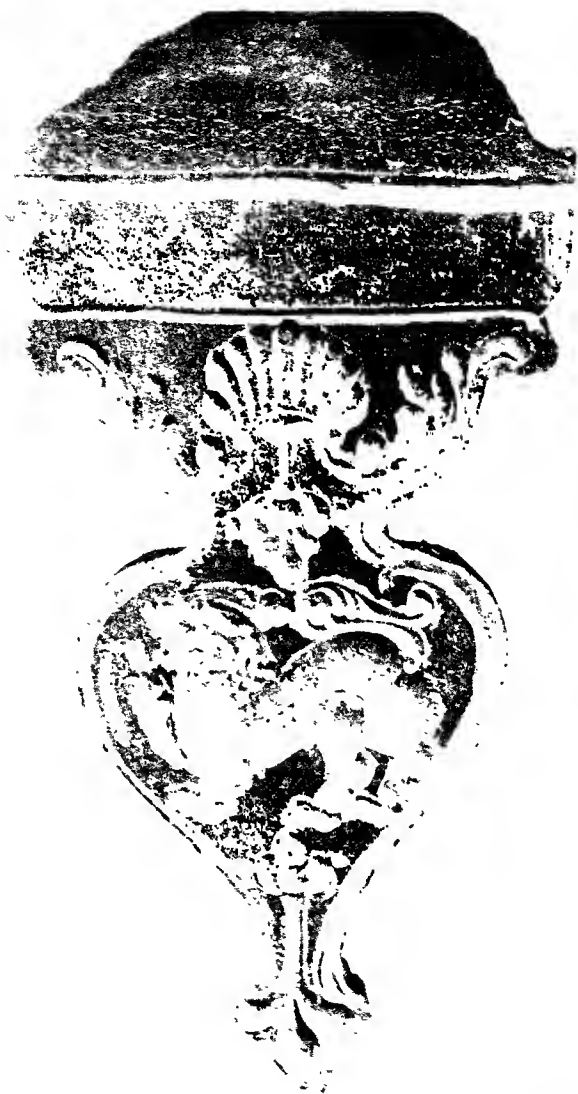


FROM *lât* AT ALLAHABAD.

Returning now to Ceylon, we shall find that "palmette" patterns are less rare than at Bharhut.* Their actual existence however is significant. The following is a list of a few unmistakable examples of "palmette" patterns comparable with the forms (figs. 10, 11, 12) occurring at Bharhut: the embroidered armlet (Plate I., fig. 1) already described; the almost identical pattern on the border of an embroidered betel bag in my possession (Plate I., fig. 3); a characteristic form found on Kandyan eaves-tiles of recent make (Plate II. and fig. 14)—this is an example of what has been termed *gegenständige lotus-bluth und palmette*, and is suggestive of Greek influence; some very similar tiles in the Museum (one

* It must be taken into consideration that if examples of the minor arts survived from Bharhut, it would be much easier to compare the Kandyan patterns with those found there; our knowledge of modern Singhalese patterns would be very limited if we had to confine ourselves to the study of work in stone.

ROYAL ASIATIC SOCIETY, CEYLON.



E.M.C. photo.

PLATE II.

KANDYAN EAVES-TILE.

being labelled Damhadeniya, 1235 A.D.); the carving on a *yatura hiramane* (coconut scraper, fig. 15) in the Colombo Museum; the form shown in fig. 9 from an ola book cover;



DECORATION FROM AN OLA BOOK COVER.



DECORATION OF A GREEK LEKYTHOS.

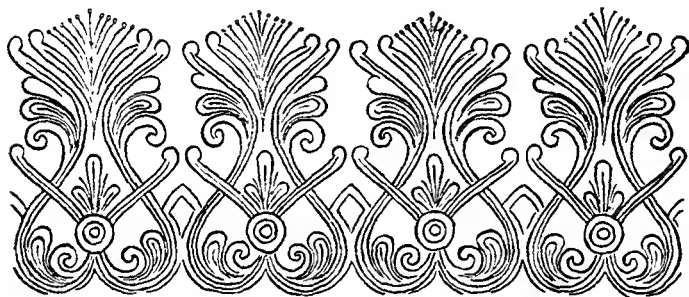


PART OF A DECORATION OF A KALAGEDIYA FROM KELANIYA.

the sgraffito decoration (fig. 17) of a *kalagediya* made at Kelaniya; and lastly the pattern shown in fig. 18 from a lac-painted stick of recent manufacture. All these examples are Kandyan, except the *kalagediya* and possibly the *hiramane*, which are low-country; many others could be pointed to.

Figure 17 already referred to has a very Greek aspect ; figure 16 shows the ornament of a Greek *lekythos* (from Professor Percy Gardner's "Grammar of Greek Art," 1905), for comparison with it. Of the pattern of figure 18 Professor Gardner tells me that it "is very different in character from Greek work, far less simple and logical." It is in more than one respect reminiscent of Assyria. Another pattern I have not yet referred to is that shown in figure 19 (p. 80) which represents the simplest form (taken from a piece of Kandyan painted pottery) of the common "pineapple" pattern

18



ORNAMENT FROM A KANDYAN LAC-PAINTED STICK.

with acanthiform foliage, recalling the forms of late Italian and early Renaissance brocades, which Sir George Birdwood (*loc. cit.*) thinks are of Assyrian origin. It should be hardly necessary to mention that to suppose that any of these forms, such as this pineapple, the Greek honeysuckle, or palmette, or even the well-known acanthus, represent deliberate pictures of the plants whose names they bear, would be a great mistake. To take for example even the acanthus, which used to be universally regarded as a representation of the acanthus plant: the Vitruvius anecdote which claims for it this origin is now regarded as mythical, for the evolution of the "acanthus" from certain types of the "palmette" has been clearly traced (see "Stilfragen," by Alois Riegl, Berlin, 1905, p. XV., and p. 248 *seq.*). Still less are the acanthus or pineapple forms in

Kandyan art to be regarded as actual representations of those plants.

There is, however, one plant ornament of indigenous origin exclusively Indian, if not purely Sinhalese; I refer to the bo-leaf and the innumerable different representations of it, a full account of which would alone fill many pages. The outline of the Kandyan eaves-tile shown on Plate II. affords an example of it. This ornament must have come into use after the time of Buddha, and in connection with Buddhism only; and as it is not found at Bharhut it may very possibly be purely Sinhalese in origin.

Of other forms the *palāpeti* pattern (lotus, or water-leaf pattern) may be mentioned; here we have a spatulate leaf alternating with a more pointed and narrower element. This form is clearly derived from the lotus petals of medallions, and is thus not strictly a cone and flower form, though reminding us of the classical “egg and tongue” and “tongue and dart” forms which Sir George Birdwood considers belong to the knop and flower type; it may be however that they also are derived from lotus petals. An example of *palāpeti* is seen in Plate I., fig. 3 F.

This brings me to the end of the list of definite survivals from the early art of Northern India which I think I have been able to trace in Kandyan art, and though I am fully aware that the subject is only superficially dealt with, still the Paper now written may be the means of awakening further interest in the important question of the origin of some of the patterns surviving in Sinhalese and especially Kandyan art.

My object in bringing the matter forward now is to provoke discussion and invite criticism, and also to demonstrate the historical value of the study of Sinhalese art and the importance of carefully preserving its remains, as much from the intellectual as from the artistic point of view.

Perhaps before summarizing my remarks it should be pointed out that I have only referred to the history of patterns derived from plant forms: the simple geometrical elements

of Sinhalese art—dots, squares, circles, parallel lines, interlacings (plaits), and the like are on a different footing, for such geometrical patterns have originated independently in various parts of the world, instead of spreading from a single centre where they were first elaborated, as appears to have been the case with the ancient conventionalized patterns derived from representations of plants, in particular the lotus.

The conclusions arrived at may be summarized as follows :—

(1) There can be traced in Sinhalese (Kandyan) art of the eighteenth century, and even much later, features which are almost certainly survivals from the early art of Northern India, some knowledge of which may be supposed to have been brought to Ceylon by the “Lion race” at the time of their immigration, though the main part of it is traceable rather to the Asokan period and the religious and artistic revival that followed the introduction of Buddhism into Ceylon. The old Indian art of the Asoka period can be best studied in the Bharhut sculptures (200–150 B.C.) which belong to the early Indian or Indo-Persian school of the first five centuries B.C., and were contemporaneous, more or less, with the Asokan missions to Ceylon.

(2) In particular, the following elements in Kandyan art can be traced to the early art of Northern India :—

- (a) In mural paintings, the use of rosettes, both simple and with an outer whorl of conventional cobra heads, to fill up inconvenient spaces.
- (b) Style of composition and general artistic convention resembling that of the sculptures, suggesting the possible existence of a Bharhut school of painting corresponding to them.
- (c) A peculiar form of armlet seen at Bharhut and found in a modern Sinhalese embroidered jacket.
- (d) Palmette patterns on Sinhalese embroideries, wood carving, lac-painting, and pottery.

(3) The present Paper is not primarily concerned with the still earlier history of the patterns in question ; but it is suggested that they are partly at any rate, as suggested by Sir George Birdwood many years ago, derived from Assyria, whence they may have travelled with that alphabet of the oldest northern Semitic or Phœnician type which became the ancestor of all later Indian alphabets and which appears on the Moabite stone and on Assyrian weights of 800 B.C.* : Assyria, however, is but a step on the way, for the patterns are ultimately traceable to Egypt. The existence of Greek influence, *via* Persia and as a result of Alexander's conquests, is indicated ; but it must be remembered that even the Greek forms themselves are also in the last analysis traceable to Egypt ; it is therefore quite unnecessary to postulate any direct borrowing of the *simple* motifs of Sinhalese art from Greece by early Indian (Indo-Persian) or by Sinhalese artists. although we may trace Greek influence in the mode of association of some of these elements (*wellenranke, gegenstandige lotusbluth und palmette, &c.*). The period of later Greek influence on Indian art must also be allowed for, inasmuch as with the spread of the foreign types of figure sculpture there must have gone also a strengthening of any Greek element already existing in the purely decorative art of the peoples influenced.

Mr. R. G. ANTHONISZ—speaking as a “layman”—said he did not know whether Dr. Coomaraswamy had intentionally omitted from that discussion the fact that the Portuguese and Dutch had been in Ceylon for about 200 years before the production of the specimens which formed the subject of Dr. Coomaraswamy's remarks. They knew, for instance, that the Portuguese first, and the Dutch after them, imported a large amount of manufactures—works of art—which they presented to the Kandyan Kings, and these had been going about the country to a great extent. They saw some of these works of art even now in some of the out-of-the-way villages—boxes with carvings and various other specimens of European art of the 15th and 16th centuries—so that he did not know whether they might not to a certain extent have influenced the character of the specimens which had been presented to them that evening. He merely threw out these

* Macdonell, “History of Sanskrit Literature,” p. 16.

suggestious as a layman, not having made the matter a subject of particular study.

H. E. THE GOVERNOR :—To what do you allude particularly—the embroidery patterns ?

Mr. ANTHONISZ :—I am speaking generally. Proceeding, he pointed to one of the illustrations in the Paper which contained a lion which it seemed to him was a characteristic of heraldic lions. The *fleur-de-lys* was, he thought, another instance. He thought the Portuguese and Dutch had brought a good deal of influence of the 15th and 16th centuries to bear upon some of these designs. He mentioned that the other day a fine discovery had been made at the Chartered Bank premises when some stones were dug up. One of them was a pillar beautifully carved with scalloped shells and other designs. They very closely resembled some of the stone pillars they saw represented in the Museum as Singhalese art. Now they knew that the Singhalese did not occupy Colombo as a station. There was no fort at Colombo until the Portuguese came there and built a stockade and then a fort in the 16th century : so that some of the stone pillars which were pointed out to them as works of Singhalese art might possibly be traced to the Portuguese.*

Mr. C. M. FERNANDO congratulated Dr. Coomaraswamy on the discovery, which he had established, of the connection between 18th century Kandyan art and the Indian Bharhut art. It was certainly a very great discovery, and students of Singhalese art in the future would always claim him as the first gentleman to point out the connection between the two.

When he had read Dr. Coomaraswamy's Paper carefully, as he did, the first question he asked himself was : Where does Sigiri come in ? The " Sigiri frescoes " was a question raised in that Society about ten years previously, and on which the Archæological Commissioner and he had " agreed to differ." Mr. Bell, in the course of a very able Paper delivered during the *régime* of His Excellency's predecessor, mentioned that the Sigiri frescoes were the work of Indian artists, and not the work of Singhalese artists. He quite agreed with Dr. Coomaraswamy that it was very difficult to draw the line between Indian and Singhalese art. Dr. Coomaraswamy had pointed out the great alliance which arose between Southern India and Ceylon by its proximity 1,000 years ago, but he had always maintained there was a similar alliance between Northern India and Ceylon in and before the time of Wijayo, and, therefore, he ventured to differ from Mr. Bell that the Sigiri frescoes should be attributed to Indian and not to Singhalese. The Sigiri paintings being in Ceylon, he would, as a lawyer, claim that possession was nine points of the law ; and until it was definitely established that they were not painted by Singhalese artists, he would not concede the proposition that they were painted by Singhalese artists. He alluded to the *Mahāvamsa* which stated that stonemasons were at one time brought from India. Other craftsmen were not mentioned—and he maintained the inference was that the other artists were had locally. He pointed out the close resemblance between the Singhalese frescoes and those at Ajanta. The Ajanta

* [The short pillar unearthed at the Chartered Bank premises is clearly of Oriental workmanship.—B., *Hon. Sec.*]

frescoes dealt with Sinhalese history, and he thought the presumption was in favour of the view that Sinhalese artists went to Ajanta and painted these frescoes, and not that Indian artists came to Ceylon. While he expressed his great satisfaction at the very able start which Dr. Coomaraswamy had made, and which he hoped would culminate in his *magnum opus*, he hoped he would find an opportunity to modify that not very broad statement that in his belief the Sinhalese paintings were not painted by artists of the country. They might, he urged, have been painted by a school of artists also existent in India, and he asked his audience to fancy any one 1,000 years after this venturing to differentiate between English and American paintings.

Mr. W. A. DE SILVA said it was stated in the lecture that Buddhist images were of the Grecian type, or commenced by Grecian artists. There was a reference in old books to images being made in gold and sandalwood; and it was quite possible images had been made for quite several hundred years before that period.

With regard to the Sigiri paintings he had quite a different theory, with which he did not think either Dr. Coomaraswamy or Mr. Fernando would agree. He thought they were neither Sinhalese nor Indian. He thought they were Mongolian, because he had seen a representation like that in a dance in Siam—a dance which belonged to the Celestial regions. The same dress, the same lotus flowers, and the same poses were seen in that dance, so that it might be quite possible that these particular paintings might have been done by the Chinese. They knew from history that there were a number of Chinese artists in Ceylon, and they had a record of their having decorated Dondra Temple.

He admitted that the Portuguese and Dutch had some influence, not on Kandyan but on the low-country art, and he had seen in one or two instances figures with skirts, and all kinds of different hats and umbrellas. He thought that had come from the introduction of Western art. The *chittra-radhurā* in the low-country, if he was asked to make a human form, wanted to put all sorts of ornaments on it; and if he drew a tree he put in lots of branches. He had seen in temples pictures representing kings and princes of the olden times mentioned in the sacred books. They were all wearing modern dress—some of them with trousers and coats! That was undoubtedly the influence exercised by the Portuguese and Dutch.

He thought that the Sigiri paintings were quite different from the ideal paintings that were extant in India and Ceylon, and not done by any Aryan or Indian, but by the Chinese artists who were employed to paint realistic figures in the kings' palaces.

Mr. P. E. PIERIS referred to a curious ornament—a cobra's head—to which Dr. Coomaraswamy had alluded in his lecture. It might interest the lecturer to know that at a temple four miles from Kūgalla, projecting from a wall, there were snakes' heads—hooded cobra. He asked the priest if he could explain the significance, but, of course, he could not. If Dr. Coomaraswamy visited the spot, in all probability he would be in a position to give them much more information.

As regards the influence exercised by the Portuguese and Dutch on Sinhalese art, he was entirely in disagreement with Mr. Anthonisz. These people were too busy cutting the throats of their (the Sinhalese) ancestors, in stealing the little money their ancestors had, and in depositing their kings and ransacking their palaces, and he did not

think they had further time to devote to the cultivation of the fine arts. It was impossible for any one familiar with the type of ornaments and type of art in the Kandyan country to think the Portuguese or Dutch influenced them. He would not go so far in connection with the low-country. The art of the low-country, which appeared in all the household possessions—bits of jewellery their wives persuaded them to buy, and the curiosities they bought themselves—throughout showed the influence of European art. If they went to the Kandyan country and went into the houses, it was however impossible to think they were in any way influenced by European artists. The arts were essentially dissimilar. He holdly controverted the statement made by Mr. Anthonisz that there was no Sinhalese settlement in Colombo at the period he stated, and quoted authorities in support of his assertion. In regard to images of Buddha, the Prince Priest, P. C. Jinawarawansa, who was present at the Meeting, told him he had an image of Buddha in a state of Asceticism dated 300 years before Christ.

Mr. SENATHIRAJAH felt it his duty to correct certain historical inaccuracies in the remarks made by one of the speakers. It was said by him that the Tamil influence on the art of Ceylon was only 1,000 years old. The *Mahāvamsa* said conclusively that the Tamil influence was there from the very commencement. Vijayo and 700 followers went over the first time to Southern India to find wires, and it is recorded in the *Mahāvamsa* that they returned with palanquins and jewels, and all these ornaments of olden times. The earliest laws and customs all pointed to the fact that the Tamil influence was there from the beginning. He claimed for the Tamil pundits the writing of a certain Pāli grammar. He would not venture to speak on the question of Sinhalese art, because unless one had studied the subject carefully, minutely, and scientifically, and unless they had compared the comparative details of modern and ancient Sinhalese art, it was mere conjecture, and he was not prepared to participate in conjecture.

Mr. D. B. JAYATILAKA did not claim to be a Pāli scholar, yet he had some knowledge of Pāli and had studied its literature; but he had never heard that Tamil pundits had ever written a Pāli grammar. He thought that no Pāli grammar had ever been written by a Tamil.

Mr. SENATHIRAJAH could quote his authority. The book is in the Library here. He could not recall the name, but it states that the earliest Pāli grammar was by a Tamil Buddhist monk.

Dr. COOMARASWAMY, replying, agreed with Mr. de Silva in thinking that it was not especially difficult to recognize the limits of European influence on Sinhalese art; it was generally, if not always, an influence for the worse.

With regard to the Sigiri paintings—he and Mr. Fernando were at one in associating them with those of Ajanta, as first pointed out by Mr. Bell. It was clear that two schools of art had existed in India, viz., the Bharhut or idealistic, and the Ajanta or impressionist; it was just possible that native Ceylonese artists of the latter school existed at one time in Ceylon, though it seemed more natural to suppose that they were foreigners. In any case, however, it was clear that the late mediæval Sinhalese art referred to in the present Paper belonged to the idealist school and had no historical connection with that of Sigiri.

He was grateful to Mr. Fernando and others for recognizing the main point of his Paper, viz., the tracing back to the Asokan period of the essential features of mediæval Sinhalese art.

A knowledge of stone building was certainly of foreign origin, for the Vijayans left their ancestral home at a time when it was not known even there; almost the first stone buildings in India are the Asokan, and there is nothing to suggest that the idea was *independently* arrived at in Ceylon.

H. E. the GOVERNOR asked those present to join him in giving Dr. Coomaraswamy a hearty vote of thanks for the very interesting Paper he had read. Dr. Coomaraswamy had entered upon the slow path of investigation, and it was possible the result might be very interesting in the future in Ceylon.

Mr. Fernando's remarks regarding Sigiri were of peculiar interest. He did not think any collection had been published of the various frescoes in the different vihares in the Island. As far as he could remember, there were some portions of the frescoes at Dambulla which showed something of the same influence as was seen at Sigiri. He thought it would be very interesting from an archaeological point of view if they could collect the various frescoes which seemed to be in existence in the vihares in Kandyan districts and get them together with some care, as these things had been got together in India. Students would then have the opportunity of comparing the details and coming to a conclusion.

He was not competent to express an opinion on the debatable points raised; but one thing he was quite clear about was that they would all join with him in heartily thanking Dr. Coomaraswamy for the Paper he had read before them, which must be interesting to all interested in the Archaeology of Ceylon.

Dr. COOMARASWAMY thanked his audience for the kind reception they had given the vote of thanks proposed by His Excellency. The pleasant and reciprocal duty now devolved upon him of proposing a vote of thanks to His Excellency for kindly coming there and taking the chair. The Society had every reason to congratulate itself on the interest and support it received from His Excellency, and he might say the whole Island should be grateful to His Excellency for the interest he took in such matters and the sympathy and support he gave to all efforts to preserve the handicrafts of the Sinhalese which were still to some extent preserved, but the lives of which hung by so very slender a thread.

This concluded the business of the Meeting.

APPENDIX.

[*"Ceylon Observer," August 8, 1906.*]

Colombo, August 8, 1906.

DEAR SIR,—As promised, I write to you. The name of the Páli Grammar referred to in my remarks at the discussion of Dr. Coomaraswamy's Paper at the last Meeting of the Asiatic Society at the Colombo

Museum is *Rupasiddhi*. "The oldest version of the compilation from Kachchayano's grammar," says Turnour, "is acknowledged to be the *Rupasiddhi*" (see Turnour's Introduction to the *Mahāvamsa*, p. 46). I quote the passage from the *Rupasiddhi*, which shows that the author was a Tamil Buddhist monk called Dipankaro, who flourished in the Chola country when Buddhism was prevalent there :—

..W... waragurunan Tambapannidhajanana
sisso ... sumati dipaladdhapakasa Baladich-
chadi wasaddwitayamaddhiwasana sasanana jotayiyo soyam Buddapiya-
who yati ; imanujukan Rupasiddhinakasi."

The above quotation is translated as follows :—

.. A certain disciple of Anando, a preceptor who was (a rallying point) unto eminent preceptors like unto a standard in Tambapanni, named Dipankaro, renowned in the Damila Kingdom (of Chola) and the resident-superior of two fraternities there, the Baladichcha (and the Chudamaniyakyo), caused the religion (of Buddhho) to shine forth. He was the priest who obtained the appellation of Buddhabiyo (the delight of Buddhho) and compiled this perfect *Rupasiddhi*."

E. S. W. SENATHI RAJA.

[*"Ceylon Observer," August 14, 1906.*]

SIR.—OWING to absence from home, it was only yesterday that I had the opportunity of reading Mr. E. S. W. Senathiraja's letter appearing in your issue of the 8th instant. Mr. Senathiraja has, I find, receded from his original position that the earliest Pāli Grammar was composed by a Tamil scholar. His letter under reply seeks to prove that the *Rupasiddhi*, a work based on Kaccayana Grammar, was composed by a Tamil Buddhist monk. In support of this second contention Mr. Senathiraja quotes the concluding verse of the *Rupasiddhi* which, I am afraid, does not help him much. This verse only goes to show that Buddhabiyo, the author referred to, was famous in South India, where he resided at one period of his life, and worked for the propagation of Buddhism in that country. Quite possibly the *Rupasiddhi* was written during that time. This does not, however, show that Buddhabiyo was a Dravidian, any more than the fact that Dr. Copleston wrote his work on Buddhism when he was Bishop of Colombo proves him to be a Ceylonese. The evidence quoted by Mr. Senathiraja cannot therefore be regarded as of much value in determining the point under discussion. On the contrary, that quotation, combined with information available from other sources, justifies the inference that Buddhabiyo was a Sinhalese scholar. According to the *Rupasiddhi* verse, his preceptor was Anando Thera, a famous Sinhalese scholar. In the *Pajja Madhu*, another work of Buddhabiyo, the full name of his preceptor is given as Vanaratana Ananda. This was doubtless the great Sinhalese scholar described in the *Rasavahini* as the tutor of Vedeha Thera, author of that work, and also of the *Siddat Sangara* and the *Samantakuta Vannana*. The *Nikaya Sangraha*, the well-known history of Buddhism, composed during the period immediately following that of these Theras, mentions Ananda Vedeha and

Buddhabiyo in order among the celebrated scholars who flourished in Ceylon, and wrote works on Buddhism during the eighteenth and the earlier part of the nineteenth century of the Buddhist era (p. 24 of printed edition). Siddhattha Thera, the author of the Pāli work *Sarasangha*, describes himself as “the last pupil of Buddhapiya Thera, the chief of the Dakkinarama” (erected by Prakrama Bahu the Great). Unless stronger evidence to the contrary is forthcoming, the facts stated above do, I venture to think, justify the conclusion that Buddhapiya Thera, the author of *Rupasiddhi*, was a Sinhalese scholar, who, however, resided for some time in the Chola country.—I am, yours faithfully,

D. B. JAYATILAKA.

COUNCIL MEETING.

Colombo Museum, August 29, 1906.

Present :

The Hon. Mr. J. P. Lewis. Vice-President.

The Hon. Mr. P. Arunachalam.	Mr. Simon de Silva, Gate Mudali-
M.A., C.C.S.	yār.
A. J. Chalmers, M.D., F.R.C.S.	Mr. C. M. Fernando, M.A.,
Dr. W. H. de Silva, M.B., C.M.,	LL.M.
F.R.C.S.	Mr. A. M. Gunasékera, Mudaliyār.

Mr. R. H. Ferguson, B.A., Honorary Treasurer.

Mr. G. A. Joseph, Honorary Secretary.

Business.

1. Mr. C. M. Fernando temporarily took the chair until the arrival of the Hon. Mr. J. P. Lewis.

2. Read and confirmed Minutes of last Council Meeting held on February 5, 1906.

3. Resolved,—That the following candidates be elected as Members :—

- | | |
|---|--|
| (1) Mr. D. F. Noyes : recommended by | } J. Still
G. A. Joseph |
| (2) The Hon. Mr. A. Wood Renton, Puisne Justice : recommended by | |
| (3) Mr. C. F. Perera Wijayasiriwardana Kaviratna : recommended by | } A. M. Gunasékera
W. F. Gunawardhana |
| (4) Mr. Mathavarayan Suppramanian : recommended by | |
| | } A. K. Coomaraswamy
S. B. Kuruppu |

3. Laid on the table list of Members elected recently by circular.

4. Laid on the table Circular No. 279 of November 18, 1905, covering a Paper entitled "A Copper Sannasa granted to King Kirti Śrī Rājāsīṃha in Saka 1685," by Mr. T. B. Pohath, with the opinions of Messrs. J. Harward and A. M. Gunasékera, Mudaliyár, to whom the Paper was referred.

Resolved,—That in view of the remarks by the gentlemen to whom the Paper was referred, that it be not accepted; but that the writer be thanked for forwarding it to the Society.

5. Laid on the table Circular No. 61 of February 7, 1906, covering a Paper entitled "Uḍapola Sannasa," with translation and notes, by Mr. T. B. Pohath, with the opinions of Messrs. H. C. P. Bell and C. M. Fernando, to whom the Paper was referred.

Resolved,—That in view of the remarks by the gentlemen to whom the Paper was referred, that it be not accepted; but that the writer be thanked for forwarding it to the Society.

6. Laid on the table Circular No. 71 of November 10, 1906, substituting Mr. E. B. Denham's name as a Member of the Council for 1906 in place of the Hon. Mr. H. L. Crawford.

7. Laid on the table manuscript translation of "Barros" and "De Couto" by Mr. D. W. Ferguson, with a letter dated May 10, 1906.

Resolved,—That Mr. Ferguson be accorded a most cordial vote of thanks from the Council for the very able way he has prepared the translation and annotations of works of considerable historical interest.

Resolved,—That the translation of "Barros" and "De Couto" be issued as an Extra Number of the Society's Journal.

8. Informed the Council that the Paper entitled "First Discovery of Ceylon by the Portuguese" by Mr. D. W. Ferguson has been received and sent to the Printer.

Resolved,—That the Paper be read at a Meeting and published in the Society's Journal.

9. Read a letter from the Hon. Mr. J. Ferguson drawing attention of the Council to a letter from Dr. Haddon of Cambridge regarding Mr. Brown's mission to investigate regarding the Vedḍás.

10. Read a letter from Mr. J. Harward resigning office as Honorary Secretary during his absence from the Island.

11. Laid on the table a paper entitled "Some Ruins in Rúhuna Ratt," by A. Jayawardana, Mudaliyár.

Resolved,—That the Paper be referred to S. de Silva and A. M. Gunasékera, Mudaliyárs, for their opinions.

12. Laid on the table the following Papers by Mr. T. B. Pohath :—

(1) "Royal Grant of Saka 1676."

(2) "Translation of a Copper Sannasa granted by King Kirti Śrī Rājāsīṃha in Saka 1690."

(3) "Text, Transcript, and Translation of a Royal Sannasa granted in 1677."

Resolved,—That the Papers be referred to Mr. C. M. Fernando and Dr. W. H. de Silva for their opinions.

13. Laid on the table a Paper entitled "The Origin of Tamil Vellales," by Mr. V. J. Tambypillai.

Resolved,—That the Paper be referred to the Hon. Mr. P. Arunachalam and S. de Silva, Mudaliyár, for their opinions.

14. Laid on the table Circular No. 148 of May 30, 1906 (covering the Essays received for the prizes offered for an Essay on Kandyan Customs), with the opinions of the Members of the Sub-Committee appointed to award the prizes.

Resolved,—That the prizes be awarded in accordance with the opinion of Dr. A. K. Coomáraswámy, viz. :—

First Prize (Rs. 30) to Mr S. D. Mahawalatenna for an Essay on "Kandyan Music."

Second Prize (Rs. 15) to "W. B. M." c/o Mr. T. B. Paranatalla, for an Essay on "Sumptuary Laws and Social Etiquette of Kandyans."

Third Prize (Rs. 15) to Mr. T. B. Bakmigahawela for an Essay on "Kandyan Medicine."

COUNCIL MEETING.

Colombo Museum. November 20, 1906.

Present :

The Hon. Mr. J. Ferguson, C.M.G., President. in the Chair.

Mr. P. Freudenberg, Vice-President.

A. J. Chalmers, M.D., F.R.C.S.

Mr. S. de Silva, Gate Mudaliyár.

Mr. C. Driberg, B.A., F.H.A.S.

Mr. A. M. Guñasékara, Mudaliyár.

The Hon. Mr. S. C. Obeyesékere.

Mr. G. A. Joseph. Honorary Secretary.

Business.

1. Read and confirmed Minutes of last Council Meeting held on 29th August, 1906.

2. Resolved, the election of the following candidate as a Member :—

Mr. L. W. F. de Saram, Solicitor and { (a) F. J. de Saram.

Proctor : recommended by { (b) C. Batuwantudawa.

3. Laid on the table Circular No. 244 of 1st September containing the opinions of Mudaliyárs S. de Silva and A. M. Guñasékera on the Paper entitled "Some Ruins in Rúhuna Ráta." by Mudaliyár A. Jayawardana.

Resolved,—That, in view of the remarks on the Circular by the gentlemen to whom the Paper was referred, it be not accepted ; but that the writer be thanked for forwarding it to the Society.

4. Laid on the table Circular No. 271 of 22nd September regarding Dr. A. K. Coomáraswámy's Paper on "Painting, Dyeing. Lacwork, Dumbura Mats, and Paper in Ceylon."

Resolved,—That the action taken by the Honorary Secretary in accepting the Paper for the Society be approved.

5. Read a letter dated 5th October, 1906, from Mr. D. W. Ferguson regarding his translation of "Barros" and "De Couto" on Ceylon.

6. Laid on the table papers sent by the Hon. the Colonial Secretary regarding the reprinting of the English translation of the *Mahāvamsa* and Mrs. A. K. Coomáraswámy's offer to translate Prof. Geiger's *Dipawansa* and *Mahāvamsa*.

Resolved,—That, as it is not clear what book on the *Mahāvamsa* Mrs. Coomáraswámy offered to translate, the Honorary Secretary do inquire, and bring the matter up again before the Council.

7. The Honorary Secretary informed the Council that Dr. A. K. Coomáraswámy is willing to deliver a lecture on a "Sinhalese Painted Box : a Study of Kandyan Art and Artists," on any day between 1st and 13th December next.

Resolved,—That Dr. Coomáraswámy's offer be accepted with thanks, and that he be asked to deliver his lecture at a General Meeting arranged for the 11th December.

8. Laid on the table a Paper entitled "Some Portuguese Documents of 1543 A.D." by Mr. P. E. Pieris, C.C.S.

Resolved,—That the manuscripts be returned to the writer in view of the explanation made by the Honorary Secretary.

9. Laid on the table a Paper entitled "Notes on some Eldlings," by Mr. J. Still.

Resolved,—That the Paper be referred to Messrs. C. M. Fernando and P. E. Pieris for their opinions.

10. Laid on the table a Paper entitled "Roman Coins found in Ceylon," by Mr. J. Still.

Resolved,—That the Paper be referred to Messrs. C. M. Fernando and P. E. Pieris for their opinions.

11. Laid on the table a Paper entitled "Notes on the Smith Caste," by Mr. H. W. Codrington, C.C.S.

Resolved,—That the Paper be referred to Mr. H. C. P. Bell and Mudaliyár S. de Silva for their opinions.

12. Resolved,—That the business of next General Meeting be left in the hands of the Secretaries

GENERAL MEETING.

Colombo Museum, December 11, 1906.

Present :

His Excellency Sir H. A. Blake, G.C.M.G.,
Patron, in the Chair.

The Hon. Mr. J. Ferguson, C.M.G., President.

Mr. P. Freudenberg, Vice-President.

Mr. C. Batuwantudāwa, Advocate.

A. K. Coomāraswāmy, D.Sc.

Mr. W. A. de Silva, J.P.

Mr. E. Evans, B.Sc.

Mr. J. C. Hall.

Mr. D. B. Jayatilaka, B.A.

Mr. P. E. Morgappah.

Dr. A. Nell, M.R.C.S.

Mr. E. W. Perera, Advocate.

Mr. M. Suppramanian.

Mr. G. W. Sturgess, M.R.C.V.S.

Mr. F. A. Tisseverasinha.

Proctor, S.C.

Mr. J. Harward, M.A., and Mr. G. A. Joseph, Honorary Secretaries.

Visitors : Thirteen ladies and twelve gentlemen.

Business.

THE LATE SIR ALEXANDER ASHMORE.

1. The President said that before entering on the regular business of the Meeting it was only fitting that some reference should be made to the deplorably sad event which had been occupying their minds very much during the past few days, the death of Sir Alexander Ashmore, Lieutenant-Governor of Ceylon. He had in his hands a Resolution which he was sure all present would approve, and which would be entered on their records. Sir Alexander Ashmore was not enrolled as a Member of the Society, but he manifested considerable interest in its work ; and he was sure that had the matter of entering his name only been brought to the notice of Sir Alexander, he would have become a regular Member.

He moved : " That the Members of the Ceylon Branch of the Royal Asiatic Society offer to Lady Ashmore and her children their deep condolence upon the irreparable and grievous loss they have sustained in the death of Sir Alexander Ashmore. His loss is deplored not only by the Members of this Society, but by the whole of the inhabitants of the Island."

HIS EXCELLENCY, much moved, asked the Members to signify their assent in the usual way by standing ; and the vote was passed in silence.

2. Read and confirmed Minutes of last General Meeting held on August 6, 1906.

3. Announced the election of the following Members since the last General Meeting :—

Life Member.

Mathavarayan Suppramaniyan.

Ordinary Members.

D. F. Noyes.

The Hon. Mr. A. Wood Renton.

M. C. F. Perera Wijesiriwardana Kaviratna.

4. Dr. A. K. COOMÁRASWÁMY delivered a lecture 'On a Sinhalese Painted Box : a Study of Kandyan Art and Artists.'

The lecture lasted about an hour, and was brought to a close by a series of lantern pictures. Dr. Coomáraswámy also showed a number of actual examples of Sinhalese art, including a large box, beautifully decorated, which served as "the text" of the lecture.

Mr. HARWARD asked whether at any stage of the course gone through by the pupils of the old draughtsmen actual drawings from Nature were made ?

Dr. COOMÁRASWÁMY : I think not.

VOTES OF THANKS.

HIS EXCELLENCY said the subject chosen by Dr. Coomáraswámy was most interesting and instructive. Dr. Coomáraswámy was the only person who had plumbed the mysteries of Kandyan art from the bottom. They had all learned something, and he hoped the lecturer had awakened that which would be of lasting interest. He agreed that the cultivation of indigenous art should not be allowed to perish. They ought to be able to elaborate some scheme, with the assistance also of the Agricultural Society, which should have for its object the affording to these people, who had preserved up to the present moment the art of their forefathers, a market for the goods they made, in order to induce them to hand on to their sons the art which had been carried down for so many centuries. It was necessary they should enter into the question—the prosaic question—as to how the artistic productions which they hoped to induce these people to continue to produce might be disposed of, because without a market for a man's wares even the art of the most enthusiastic artist could not live on for ever. He hoped they would be able to make such arrangements as should make it possible for these arts to be preserved.

The love of symmetry in Kandyan art—the fact that when a certain figure was produced on one side a similar figure was produced on the other—was most interesting. They found that exactly the same thing existed in Chinese art. The Chinese,

when they made a pair of vases, as they were very fond of doing, produced them of exactly the same pattern, only reversed, and so closely copied that to an observer who did not look very attentively at them they would appear to be stencil work turned over. That symmetrical idea seemed to him to be peculiarly Eastern.

He did not feel he had any right to say anything more upon the lecture, though he might have all the valour of ignorance on the subject. He would ask them to join in a hearty vote of thanks to Dr. Coomáraswámy for a lecture so full of thought and instruction. He was afraid they would not have many more opportunities of welcoming Dr. Coomáraswámy amongst them and of listening to his lectures; but he could assure Dr. Coomáraswámy that when he returned—as he would return in a very short time—to Europe he would carry with him warm feelings of appreciation from the people of Ceylon, and amongst them the heartiest of good wishes and the warmest feelings from the Members of the Ceylon Branch of the Royal Asiatic Society.

The vote was heartily accorded.

Dr. COOMÁRASWÁMY thanked his hearers for their kind attention, and expressed his appreciative sense of the kind words of His Excellency.

A vote of thanks to H. E. the Governor, proposed by the President, and seconded by Mr. P. Freudenberg, terminated the proceedings.

JOURNAL

OF THE

ROYAL ASIATIC SOCIETY, CEYLON BRANCH.

NOTES ON PAINTING, DYEING, LACWORK, DUMBARA MATS, AND PAPER IN CEYLON.*

By A. K. COOMARASWAMY, D.Sc.

1.—*Technique of Sinhalese Painting.*

It is impossible in a short space to treat adequately of Sinhalese painting, the most important and most interesting branch of Sinhalese art, architecture excepted. The best place to study painting is in old viharas such as Degaldoruwa. Ridi Vihare, Danagirigala, where there still remains good 18th century work done for King Kirti Sri, that liberal patron of religion and the arts ; something is also to be learnt from old painted furniture and from the few existing but very beautiful illuminated paper manuscripts of the 18th and early 19th centuries.

Vihara paintings are executed *in tempera* on the walls and ceilings ; the usual subjects are of course religious—Jatakas, scenes from the life of Gotama Buddha, Mara's battle, the twenty-four assurances, and the like ; pictures of the gods are

* Reprinted, with additions and corrections, from the " Handbook to the Exhibition of Arts and Crafts in connection with the Ceylon Rubber Exhibition." Colombo, 1906. See C. A. S. Journal, Vol. XIX.. No. 57, 1906, p. 98. Council Meeting, November 20, " Resolution 4."

also common, and often a portrait of the endower or restorer of the shrine, which portraits are useful records of 18th century costume.

The vihara wall paintings generally include narrative illustrations of Jatakas; they use the method of continuous narration, *i.e.*, the same figures are repeated continually without break along a series of panels, in the different situations proper to the progress of the story; the story is depicted as a whole, not as a series of isolated pictures. One of the most noticeable features is the extreme delicacy of the drawing; there is often a wealth of fine detail which it is almost impossible to copy. The style of course is strictly appropriate and decorative, very restful, and pleasant; the pictures do not intrude themselves, but are there when you want them; adapting Morris, "the wall is a wall still and not a window; nay a book rather, where, if you will, you may read the stories of the gods and heroes, and whose characters, whether you read them or not, delight you always with the beauty of their form and colour."

It is however in pattern designing that the Kandyan painter really excelled. The finest work of this kind is found in ceiling paintings of the 18th and early 19th centuries. Most elaborate patterns based on a proper geometrical construction and having withal a delightful spontaneity are found. The best of this work is equal to anything that has ever been done in pattern designing. Beside patterns, ceiling paintings often include, as at Kelaniya, representations of the nine planets, the twelve signs of the zodiac (all personified), and the like subjects. Amongst the best surviving ceiling paintings are those at Kelani, and in a vihara at Ganegoda near Pelmadulla.

The amount of furniture used was so small that it is not surprising that few painted examples remain. It is clear however that the Kandyan craftsman, like the mediæval European, was given to painting his wood and ivory work. The finest example of painted woodwork I know of is the large book-box at the Ridi Vihare.

Of illuminated manuscripts of the 18th century very few survive, but these are in many respects so excellent as to make the absence of others very regrettable. Those existing are executed on Dutch paper, and consist of Buddhist scriptures with pictures and conventional ornament.

There exist also working drawings and specimen drawings on Dutch paper, executed in the 18th century.

The old paintings are executed in a gum medium and in a very limited range of colours—red, black, and yellow, and sometimes shades of these produced by mixture with white. Blue and green are only very rarely found.

The old pigments were prepared as follows:—

White.—This is *makul* or kaolin (Chinese white); it is chiefly obtained near Maturata. It is often mixed with other pigments to make pink, gray, &c.

Red.—This is *sadilingam* or cinnabar, which is still purchasable in the bazaars and used as of old. The mineral is not known to occur in Ceylon and must always have been imported.

Yellow.—This is gamboge from the *gokatu* tree (*Garcinia morella*); but the material preferred for some purposes, such as painting on wood, is orpiment (*hiriyal*); it is now customary to use *hiriyal* generally even where *gokatu* would be better.

Black.—This is lamp-black, to prepare which jak milk, *kekuna* oil, and *dummala* are ground up together and mixed with shreds of cotton cloth, then set over a small fire in a clean chatty with another turned over it; the soot is deposited on the upper chatty and collected.

Blue.—This colour is very rarely seen; it was obtained from the leaves of the *nilgas* (indigo), but small quantities only were available. In the great majority of old paintings blue is absent, and so is green.

Green.—Made by mixing blue with yellow. Very sparingly used and generally absent altogether.

Gold.—Gold is used in one case in an old (18th century) pattern book which I have seen, and in an 18th century *banadaham pota*, or breviary, a paper MS. said to have

belonged to King Narendra Sinha. The gold prepared for use is said to have been brought from Siam. Its use is certainly not indigenous.

Shades of colour.—Red, black, and blue are mixed with white to form respectively pink (*imbul sivi*), gray (*sudu kalu* or *nilsivi*), and pale blue (*nilsivi*). The gray is generally used in place of blue or green where either of these colours would appear natural or necessary, as for trees, or representations of Vishnu, the “Blue God.” A little yellow added to the gray gives it a greenish tinge. The use of these shades (never in such a way as to produce undue relief or interfere with the flatness of the decoration) and so also of *limited* quantities of other colours (particularly green on painted woodwork), and of the invariable black outline tempers any hardness of contrast between the red and yellow.* The whole range of colours may be thought very limited, but it will be found that a sufficiently varied use can be made of them, and the very limitation was a safeguard and a stimulus to the imagination and ingenuity of the Kandyan painter.

According to the proper method the aforesaid pigments were finely powdered and mixed with gum (*divul latu*) of the elephant-apple tree and water, which dries without glaze.

Oil colours were never used;† but where desirable, as in the case of paintings on wood (book covers, book boxes, and other furniture) or outdoor work, the colours are protected by a layer of varnish (*walichchiya*). This varnish is made thus: powdered *dummala* (which must be white and clean, not dark) is mixed with *dorana tel* (oil obtained from the *dorana* tree, *Dipterocarpus glandulosus*. Thw.) and boiled for half an hour or more and then allowed to cool, when it is ready for use; after some two or three days it begins to harden, and more oil must be added and the whole boiled to make it again fit for use. The varnish so prepared smells strongly of

* Cf. Ruskin, “Stones of Venice,” Vol. III., ch. I., § xxviii.

† I have finally assured myself on this point since the Handbook was issued.

turpentine and dries quickly. The yellow *gokatu* (gamboge) paint is said to be itself a *walichchiya* and not to require any other varnish. A superior method of varnishing small wooden articles is to cover the painting with a thin coating of carefully cleaned and strained *keppettiya lakada*. Old book covers will always be found to have been so treated.

The brushes *tehi kura* used are made of cats' or squirrels' hair, and are very small and delicate. Long, fine, stiff brushes for drawing delicate lines are prepared from *tehi tana* awns (*Aristida adscensionis*). Larger brushes are made from the aerial roots of *wetakiya*, a species of *Pandanus*.

One great merit of the old Sinhalese painter is the thoroughness of his knowledge of the preparation and properties of the pigments and tools at his disposal: their natural limitations moreover tended to restraint and gravity. The old methods are still well understood and sometimes followed by the best workmen; unfortunately, however, those responsible for modern vihara decoration rarely take the trouble to secure their services; and the majority of inferior painters run riot with Aspinall's enamel and Rickett's blue, with which they depict designs more like those to be looked for on second-rate Christmas cards than suitable for temple walls. Even the best men are rarely proof against the temptation to make use of new and gaudy colours, which destroy the beauty even of the best design; and even if they desire to adhere to old ways, those responsible prefer to buy cheap colours and so save something for themselves, for it must be admitted that the use of good colours, as of most things worth using, involves the expenditure of time and money. It is to be hoped that Sinhalese, and especially lay incumbents of temples, will in the future feel a growing sense of their responsibility in these matters, both as regards the preservation of good old work, and in seeing that they do not continue to hand down to posterity productions vastly inferior to those which they themselves received from the past.

2.—*Notes on Dyeing in Ceylon.*

The three plants most extensively used for dyeing in Ceylon are *chaya* (*Oldenlandia umbellata*), *patangi* (*Cæsalpinia sappan*), and *jak* (*Artocarpus integrifolia*).

Chaya root dyeing is, or rather was, only practised in the Northern Province, and especially in the Mannar District; "Painter street" in Mannar is still occupied by persons of the Dyeing caste. Casie Chitty states in his Gazetteer (1834) that "*chaya* root, which yields a scarlet dye, grows wild almost all over the northern districts, and the collection as well as the sale of it was once the exclusive monopoly of Government, farmed out to private individuals. In 1830, however, the monopoly was abolished, the revenue having declined from £2,000 to £200 per annum; and the trade is now not only left open, but free from all taxes. None but a particular class of natives dig for the roots, and when under a monopoly they were remunerated at the rate of $\frac{3}{4}$ d. per pound. Indigo likewise grows wild. . . . but does not seem to flourish when cultivated." In Trimen's Handbook to the Flora of Ceylon, II., 316 (1894), it is stated that the root was then still gathered to a small extent, and that a village in Mannar is wholly occupied by a caste who dye cloths with it. "The colour is a dull pinkish purple and very durable. There was formerly a considerable export to India. . . . Extracts from the Dutch records referring to the collection of this plant for Government are given by the late Colonial Surgeon Ondaatje in the Appendix to the Ceylon Almanac for 1853, pp. 14–16."

The fullest description of the dyeing process is given by S. Katiresu in the Ceylon National Review, No. 2, 1906. The *chaya* root is generally used in combination with other dyes; these are applied in the required places after the parts which are to remain white have been protected by beeswax, and then comes the dyeing proper with *chaya* root. "In a caldron or earthen vessel. . . some 4 or 5 gallons of water are gently heated and about a quart of *chaya* root powder is put in and boiled gently, say the heat not to rise over 110° F.

Now the cloth is allowed to boil in it for about two or three hours at the same heat. It is taken out, dried in the shade, washed in cold water, and dried again. A second caldron or vessel is also made ready in a similar way, but in this case the heat of the water is increased to about 145° F. . . . A third caldron is also so made ready and the process repeated, but in this case the heat is increased to about 180° or 190° F. This heat melts the wax on the cloth. Some dyers who believe in doing things on the cheap try the third process directly without going through the former two. This does not give the enduring power to the cloth, nor is the colouring fast. . . . The colour thus produced is called *mantaliniram*." If alum be mixed with the *chaya* root, a dark reddish colour is produced ; " this colour may also be obtained by soaking the cloth first in a mixture of water with gallnut powder, and then, after drying, in a mixture of water with alum."

The dyes used in combination with *chaya* root to produce black or red lines are called *karam* and are prepared thus : for black, " about 2 ounces of alum and 1 lb. of iron filings or rust are put into a vessel containing about a quart of water and are left to lie for two or three days until the water grows dark. If it is not dark enough, some more iron is put in ; for red, the *karam* is prepared without iron, and the cloth is previously soaked in a mixture of gallnut powder and water : or for black, iron put into the water of a young coconut, in the proportion of about a pound to a quart may be used, and forms an indelible black if used on a cloth previously soaked in gallnut water ; while for red a 10 per cent. solution of alum may be used on a cloth previously soaked in gallnut water. The parts to be so coloured are painted with the *karam* previous to the general dyeing with *chaya* root, the parts to be white remaining protected by beeswax throughout.

This art of dye painting on cloth is a very ancient one ; the old Kandyan flags and Dewala hangings used to be so done, almost certainly by Tamil workmen. Painted cloths are still made in Jaffna for the Sinhalese market. The

custom of Sinhalese painters of painting on cloth with pigments (as in the Peradeniya Exhibition hangings) is quite different and comparatively unsatisfactory. *Chaya* root dyeing, however, is almost a thing of the past, for alizarine or aniline dyes are now almost or quite exclusively used in place of it, of which Mr. Katiresu states that "the colour produced is totally different from the *chaya* root dye. It has none of the good qualities of the *chaya* root. It does not help to preserve the cloth, nor is it warmer, nor can it stand the washing of the dhoby."

So much for *chaya* root.

I am inclined to think that madder and indigo have not been used as dyes in Ceylon, and that the blue and red cotton used by Sinhalese weavers has always been imported, as is now the case. Colonial Surgeon Ondaatje states that madder, though found in Ceylon, appears never to have been used by the Sinhalese as a dye. Trimen says the same.* Of indigo Trimen remarks that it is not cultivated in Ceylon, but the "natives of Jaffna use the leaves of the wild plant in obtaining a dye for cloth." Mr. Nevill (*Taprobanian*, Vol. I., p. 112) says: "There is in Ceylon a wild indigo, but it does not appear ever to have been exported, or to have been of special value. It affords a bright pale blue dye, locally, but slightly, used." The blue was also made use of as a pigment. It may be worth while to encourage the cultivation of indigo on a small scale in the northern districts.

Patangi (*Cæsalpinia sappan*) is the most important of other Ceylon dyes. It is used for colouring palm and grass leaves for mat weaving, a fine red; it is also applied to rattan for baskets, to ola leaves for various purposes, and to the *niyanda* fibre used by Rodiyas and Kinnaras for making whips, brooms, and mats.

* But Mr. Donald Ferguson reminds me that *ruiva* roots were used in Dutch times for dyeing. (See Lee's Ribeiro 173-4. 195 Pielata's Memoir 29.) Post. *ruiva* = Lat. *rubia* = madder.

The materials chiefly used in making the best mats are *indikola* (*Phoenix zeylanica*) and *hewan* (*Cyperus dehiscens*). The proper process of dyeing this with *patangi* is rather complicated, and the practice varies in different districts. At Niriella the process was as follows. On the first day two handfuls of *korakaha* leaves (*Memecylon umbellatum*, Burm.) are pounded in a mortar, squeezed out in water by hand, and the resulting liquid, resembling pea soup, strained; two handfuls of *patangi* chips are added and the whole left to stand. On the second day the solution has become red. The *patangi* chips are removed, pounded, and replaced, and the whole boiled with the *indikola* which is to be dyed, tied up in little sheaves. The pot is allowed to cool and left till next day. On the third day leaves of *bombukola* (*Symplocos spicata*, Roxb.), *hin-bowitiya* (*Osbeckia octandra*, D.C.), and *korakaha*, pieces of *kebella* bark (*Aporosa Lindleyana*, Baill.), and a handful of chips of a yellow wood called *ahu* (*Morinda tinctoria*), together with a small bundle of roots of *ratmulgas* (*Knoxia platycarpa*, Arn. var.) are pounded and added to the solution in which the *indi* leaves remain; the whole is boiled and then allowed to cool and stand till next day, when the leaves are removed and dried, after which they are ready for use.

I have another receipt from Welinuada. To a pound of *galeha* (another grass used for mats) take two pounds *korakahu* (or *welikaha*), half a pound of *kiribat-mul* (root of *Knoxia platycarpa*), two pounds *patangi* powder, four cents weight of green "saffron," half cent weight of lime. and four pots of pure water. Boil for three days with a strong fire in the morning, slow fire during the day, and again strong fire in evening and slow fire during the night. The pot must not be removed from the hearth during the three days, after which the dyed grass can be removed and dried in the shade.

The colour thus produced is a fine red, which does indeed fade slowly, but lasts as long as the mat is likely to, which is more than can be said of the aniline dyes which have

now entirely replaced *patangi* in many districts. Of these the magenta is unpleasant and the green very fugitive.

The customary method of dyeing grasses or palm leaves black is to bury them in rice field mud, after soaking in an extract of gallnuts (*aralu* or *bulu*). The lower oxide of iron in the mud combines with the tannin to form tannate of iron, or ink. For this information I am indebted to Mr. Kelway Bamber.

A dye prepared from mangrove and called *kadol* is used in the Kalutara District for dyeing nets, boat sails, and coir, and as a coating for brick floors (information received from the Totamune Mudaliyar).

A yellow dye is sometimes got from the young fruits of the *kaha* (*Bixa orellana*), or from "saffron," (? *turmeric*) which is pounded in a mortar, extracted with water, and boiled for an hour with the leaves to be dyed.

The yellow dye of priests' robes is obtained from the wood of the jak (*Artocarpus integrifolia*), in an extract of which the cloth to be dyed is soaked; the extract is sometimes boiled also with *bombu* leaves. The yellow dye is not permanent, but is easily renewed, and the colour improves with repeated applications.

The mats made by the Kinnaras from *niyanda* fibre are coloured red, black, and yellow; the red is made with *patangi* with the addition of *korakaha* leaves and gingelly oil and alum; the yellow is obtained from the yellow wood of the *weniwel* creeper (*Coscinium fenestratum*) and *kaha* fruits; the fibre is boiled for a day in a decoction of these; the black colour is produced with the help of gallnuts (*aralu*, *Terminalia chebula*, and *bulu*, *Terminalia beleria*) and rice field mud.

These dyes are satisfactory in appearance, but are not very permanent, and the mats are found to be considerably faded after one or two years. They are however cheap goods and not intended to last for ever. Still it would be very fortunate if some better mordants could be devised, as the aniline dyes (which are not yet used by the Kinnaras, but are much used by other mat and basket weavers) are no better, but rather

worse than the original ones in respect of permanency and much worse in respect of beauty, which is after all the only reason why dyes are used at all—a fact which is sometimes forgotten.

It will be seen that the art of dyeing has not been developed in Ceylon to so great an extent as in India, and it is now much more neglected than was the case sometime ago. So long, however, as it is thought worth while to dye materials at all, it may as well be done well, and now that cotton is likely to be grown again in Ceylon and weaving may be partly revived, it may be possible also to improve and revive the art of dyeing. This should be done by endeavouring to improve the method of application of the old vegetable dyes of Ceylon and of India, while the use of aniline or alizarin dyes should be carefully discouraged.

3.—*Lacwork*.^{*}

Lacwork is a well-known industry in India and Ceylon. In Ceylon it is quite a small industry, and deserves to flourish and be encouraged as such.

Ceylon lac is the product of two species of the lac insect, both different from the Indian. One called *keppettiya* or *konlakada* (*Tachardia albizziæ*, Green) occurs on several trees, amongst which are the *keppettiya* (*Croton aromaticus*), *kon* (*Schleicheria trijuga*), and *hinguru* (*Acacia cæsia*). The other species (*Tachardia conchiferata*, Green) is called *telakiriya lakada*, and is found on an euphorbaceous plant called *telakiriya* (*Excoecaria agallocha*); this is a rarer species, but produces lac of a brighter and clearer quality. Beside these, small quantities of imported Indian lac are sometimes used.

Lacwork is now carried on in Kandyan districts at Hapuwida (South Matale), Pallekanda near Balangoda, and Hurikaduwa in Pata Dumbara, and in the low-country at Angalmaduwa, near Tangalla.

^{*} This account of lacwork in Ceylon is partly based on Mr. E. E. Green's article on Lac, *Annals R. B. G., Peradeniya*, Vol. I., Part V., Supplement, 1903.

The Matale work is by far the most distinctive, and may be described in detail, after which the Hurikaduwa and Angalmaduwa methods will be referred to.

The Matale work is called *niyapoten weda* or finger-nail work; this name is given because the work is done chiefly with the finger or thumb nail. The lac pigments are prepared as follows. The freshly collected twigs bearing the lac insects are dried in the sun; the resin is then removed, pounded, and winnowed or sifted. The crushed lac is enclosed in narrow bolster-shaped bags of thin cloth; the bags are heated over charcoal fires and twisted till the melted lac oozes through the cloth. The lac is scraped off: a part of it is next softened over a fire and attached to the point of a small stick, and then again warmed and a second stick attached. The softened lac is then drawn out between the two sticks, worked about, doubled up, and redrawn many times until it assumes the form of a long stout ribbon of glistening fibrous lac of a bright golden brown colour. The pigments are now mixed into the lac by softening it and pounding the coloured powders into it. The four colours used are red, yellow, green, and black; of these, the red is vermilion (*sadilingam*); the yellow, orpiment (*hiriyal*); the green is yellow with the addition of "dhobies' blue", formerly "*punil*" (indigo); and the black is prepared in the same way as the black used in painting.

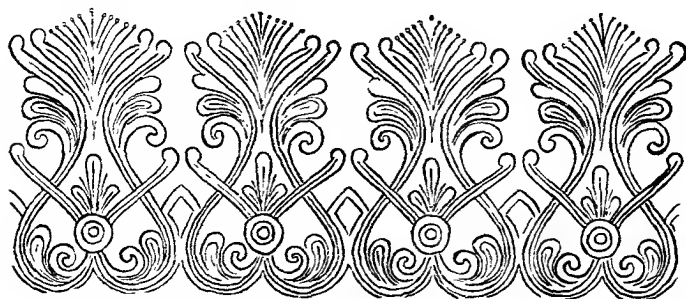
The lac thus prepared is used for the decoration of a large variety of articles, especially wooden sticks of various kinds, such as staffs (*herimiti*), handles of ceremonial spears, banners, fans, &c., ceremonial pingos, &c., and also to many other things such as powder horns (*wedibehet karaka*), clarionets (*horanewa*), book covers (*pot kambhi*), &c., and it is also used as an inlay in ivory, horn, and chank work. For this purpose the ivory is incised with lines and circles which are filled up with the coloured lac. In the case of turned ivory or horn, this is effected by holding a piece of lac against it, while revolving on the lathe; the lac heated by friction is softened and fills up the incised grooves. The ornament in Kandyan

districts is confined to incised lines and circles similar to work from Jodhpur in India (Watt, "Indian Art at Delhi," p. 179) ; but flat plates of ivory inlaid with scroll and floral ornament are used in the fittings of calamander boxes made in the low-country, particularly at Matara, and this style reminds one of the similar methods of decorating ivory used on the musical instruments still made at Tanjore.

Returning to a consideration of the ordinary *niyapoten ueda*, it will be best to describe the process in its simplest and commonest form, namely, in the decoration of a staff. The stick having been shaped and smoothed, the workman squats on the ground, having before him a chatty (*gini kabala*) containing a charcoal fire. The lacworker's tools consist of short sticks with a lump of coloured lac at one end of each and a short strip of *puskola* (talipot leaf, *Corypha umbraculifera*). The stick is first coated with the ground colour, usually red. To effect this, the stick is warmed over the fire and lac applied, which lac is pressed and smoothed out with the piece of talipot leaf, while still kept warm over the fire ; in this way the whole stick is gradually covered with a coating of red lac. It now remains to add the pattern, which may be very elaborate. For this it is needful to draw out the lac into strips of the desired thinness. To do this, the lump of lac is well warmed, and then, a small piece being held between finger and thumb, the rest is pulled away, leaving a long thin connecting thread which is wound round the bent knee, into a skin. After passing four or five times round the knee the lac becomes cold and must be warmed afresh. Now to apply a narrow band of coloured lac to the stick, the stick is warmed gently, while kept continually turning by a small boy who squats behind the operator, and one end of the string of lac is attached to the stick by pressure, and the rest likewise as the stick turns ; the thread of lac is nipped off by the thumb nail when a revolution is complete. The stick is then warmed again and smoothed with the leaf. For more complex patterns (and some are very elaborate) string lac is applied in first

the same way, and nipped off with the nail; dots are thus formed by applying the end of the thread of lac and cutting off a tiny piece with the nail; such dots are consequently square or diamond shaped.

The lacwork is usually limited to a small number of good conventional patterns admirably adapted to the nature of the material; when, as occasionally happens, these are departed from, and an endeavour is made to represent some more ambitious subject, such as an elephant or lion (as occasionally on book covers), the result is necessarily not quite so satisfactory. Most of the work however is from a decorative point of view thoroughly sound, and the colours pleasing.



ORNAMENT FROM A KANDYAN LACWORKED STICK.

The following are many of the names applied to patterns formed in finger-nail work—*welpota* (this is the pattern illustrated), *adarakondur* (plain lines), *bindu* and *galbindu* (diamond shaped spots), *kola wela* (an interlacing creeper pattern) *pala peti* (petal pattern), *lanu geta* (plait patterns), *patura* (elongated isosceles triangles), *bo-kola* (bo leaf) *dela* (net pattern), *suli wela* (another creeper pattern).

The Angalmaduwa and Hurikaduwa process differs from that above described in that the lac is applied to the wood while revolving on a turning lathe, the heat of friction softening the lac and causing it to adhere. This process is more limited, being only applicable to objects which can be turned on a lathe, and it does not admit of the delicate pattern work of

the finger nail process. In fact, the ornament can only consist of concentric bands of colour applied to the different parts of small (usually rickety) tables, chairs, tom-tom frames, and walking sticks. The old Kandyan lac striped round boxes (*abharana heppu*), bed legs (*enda kakul*). &c., were handsome and substantial. Hones (*kana lella*) were also made by lac workers. and consist of lac mixed with powdered *kurundugala*. properly corundum, sometimes garnet.

It will be seen that both kinds of lacwork differ fundamentally from painting in that brushes are never used; in this respect the work differs entirely also from the lacquer varnish work of Japan, with which it is sometimes compared and confused.

The technique differs also from that of the Maldiv Islands, where the lac applied by turning is afterwards incised, a process also characteristic of the well-known Sindh boxes. Whether anything corresponding to the Kandyan *niyapoten weda* is found in any part of India, I am not able to say. It has at any rate a well-marked character of its own.

4.—*Mat Weaving by Kinnaras.*

The well-known Dumbara mats, called *kalala* or *kalale*, are made by low caste people called Kinnarayas. The fibre used is *niyanda*, obtained from the "bowstring hemp," *Sansevieria zeylanica*. The round green leaves are scraped against a log (*niyanda poruwa*) with a wooden tool (*gewalla*) like a spoke-shave. After scraping, which removes the fleshy part of the leaf, the fibre is oiled and brushed, and is ready for use almost at once. A part only is left white, while the rest is dyed red, yellow, or black as required (see under "Dyeing"). The warp thread (*kalal heda*) is spun like cotton on a spindle (*idda*), but the weft elements (*nul heda*) are not spun at all and consist of parallel fibres. The loom is a low horizontal one. something like that used in cotton weaving, but much more primitive. There is no *alwala*, and the operator squats on the actual mat supported by a few flat logs between it and the

ground. The pattern is picked up with a weaver's sword (*wema*), which has an eye at one end through which the weft fibres are threaded, thus serving as a bodkin to draw them through the warp ; a toothed comb (*alu karala*) like that of the cotton weaver's is used to drive the threads home. The raising and separation of alternate threads to facilitate plain weaving is effected by a very primitive type of heddles. The actual loops of the heddles (*welakadduwa*) remain in one position, not moving up or down ; every alternate warp thread passes through a loop. The separation of alternate threads is effected by the movement of two wooden rods, of which one (*uttarapata* or *kontaliya*) rests on the warp, the other (*pannambate*) passes between alternate threads of it.

The warp is carried on two rods, *kotta kura* and *adina kanda*. The first of these is a thin rod which is tied to the stouter *heda kanda* which is itself tied to sticks driven into the ground. This is at the near end. At the far end, the *adina kanda* is held by two strings (*kadu pa-lanu*) to two posts (*kalalkanu*), and is tightly strained. The heddles are supported on a tripod arrangement of sticks (*tunpa kolle*) which is moved along the mat as work proceeds.

The warp is laid (*diggahanawa* or *heda lanawa*) in two operations. First the spun thread (*nul*) is unwound from the spindle, broken and passed through the loops of the heddles and the teeth of the comb ; the short ends left projecting through the comb are loosely tied to prevent the threads slipping out again. The remainder of the warp is then laid according to the required length, broken off, and joined on to the short ends already prepared.

Mats of perfectly plain weaving in stripes are called *pannam kalala* ; the usual sort are also decorated with birds, and these are called *kurullu kalala* ; mats with a variety of patterns are called *weda peduru* or *weda kalala*. Other animals such as fish, deer, elephants, cobras are often found on elaborate examples as also trees (called *malgaha*) and a variety of geometrical patterns (*toran petta*, *taruka petta*, *pannam petta*,

depota lanuwa, tunpota lanuwa, delgeta lanuwa, ratwat-alankaraya, taniweliruwa, &c.).

When the weaving is finished the projecting ends of fibre at each end of the mat are turned up over a thread drawn tight along the edge (like a piping-cord) and knotted each one to it by another thread which catches up each projecting end in a slip knot, forming a neat binding.

The mats are pleasant in colour and sometimes varied in design, and can be turned to various decorative ends; they may be made into screens or used as a dado or allowed to serve their natural purpose on the floor. After two or three years, however, the colours are somewhat faded, but as new mats are not very expensive, the old ones can then be renewed.

5.—*Paper and Tinder in Ceylon.*

Of *paper making*, now a lost art in Ceylon, Mr. W. C. Ondaatje wrote as follows in 1854 :—*

“The manufacture of paper by the Kandians during the period the country was under native rule is a subject which I conceive is fraught with much local interest, nor am I aware that public attention has before been directed to it. It seems probable, from the intercourse that once subsisted between the ancient inhabitants of the Island and the Chinese, especially in connection with the cinnamon trade, that the Singhalese derived their knowledge of manufacturing paper from the latter, who, it is well known, have made it from the *liber* or inner bark of a species of morus, cotton, and bamboo from time immemorial. Whilst botanizing in the jungles of Badulla a species of fig was pointed out to me by an old Kandian doctor, which, he said, had formerly been used to make paper from. On further inquiry I ascertained from another aged Kandian that the plant to which my notice had been first called was of a different species from that which had been used by his countrymen for making paper. This individual himself had never made any, but understood the method

* Observations on the Vegetable Products of Ceylon. Colombo, 1854.

.....as his ancestors had to supply the stores of the Kings of Kandy with paper, being that branch of the general service that had been imposed on them—a service better known by the name of ‘Rajakariya,’ or compulsory labour. The paper thus manufactured by them was not used for the purpose of writing upon, but for making cartridges for gunpowder. The people on whom this duty devolved were the natives of Baddegama in the District of Badulla, who received grants of land in consideration of the service they rendered to the State.

“The tree from which the Kandyans made their paper is a species of the *Ficus*, called in Sinhalese ‘nanitol,’ which is found in great abundance everywhere in this country..... The following is the Kandyan method of making paper. From the tender branches the whole of the bark is stripped, and afterwards the inner bark (*liber*), which is of great tenacity, is separated by the hand from the outer skin, and is put into a large earthen pot and boiled with the ashes of the *Erythrina indica* (*Erabodu*, Sin.) until it becomes soft, when it is removed and beaten with a wooden mallet on a stone till it assumes the consistency of dough. It is next put into water and churned with the hand, which process soon converts it to a fine homogeneous emulsion. This is poured into a frame, having a cloth bottom floating in water. It is again agitated with the hand until the whole becomes uniformly spread over the cloth on which it settles down smoothly. The frame being then withdrawn from the water, which is allowed to drain off gradually, is next put to dry in the sun. When dry the paper thus formed is easily removed from the cloth bottom, and becomes soon fit for use. It is very tough and remarkable for its tenacity, and does not appear to be liable to the ravages of insects, as I have seen a specimen of the paper made by the Kandyans about fifty years ago, which is still in excellent preservation, although no very great care seems to have been taken of it. It is only adapted for writing upon with Indian ink.”

I have seen specimens of the old paper in the possession of Kandyan painters. It is of a whitey-brown colour, very coarse texture, and rather thick.

Tinder making is also described by Mr. Ondaatje. There is a woolly material found at the base of the leaves of the *kitul*. "After having collected a sufficient quantity of the material, which they call 'kitul poolung,' and well drying it in the sun, they mix it with the ashes of the leaves of the *Solanum verbasiolium* (*Hakirilla*, Sin.), *Vitex trifolia*, and lime rind, and thus is made native tinder." The tinder was carried in a little round bag made of plaited cotton, and with a small opening from which a little of the tinder could be extracted as required.

ANNUAL GENERAL MEETING.

Colombo Museum, March 15, 1907.

Present :

The Hon. Mr. J. Ferguson, C.M.G., President, in the Chair.

Mr. P. Freudenberg, Vice-President.

Mr. R. G. Anthonisz.

Mr. P. de Abrew.

Mr. F. J. de Mel, M.A., LL.B.

Mr. S. de Silva, Gate Mudaliyar.

Mr. L. de Saram, Solicitor.

Mr. W. A. de Silva, J.P.

Mr. R. H. Ferguson, B.A.

Mr. C. M. Fernando, M.A., LL.M.

The Hon. Mr. G. M. Fowler,
C.M.G.

Mr. I. Gunawardena, Mudaliyar.

Dr. C. A. Hewavitarana, M.B.,
C.M.

Mr. D. B. Jayatilaka, B.A.

Mr. P. D. Khan.

Mr. S. B. Kuruppu, Proctor.

Mr. P. E. Morgappah.

Mr. C. Namasivayam.

Dr. A. Nell, M.R.C.S.

Mr. E. W. Perera, Advocate.

Mr. F. A. Tisseverasingha, Proc-
tor, S. C.Mr. G. E. S. S. Weerakoon,
Mudaliyar.

Mr. J. Harward, M.A., and Mr. G. A. Joseph,

Honorary Secretaries.

Visitors : Twelve ladies and twenty-seven gentlemen.

Business.

1. The CHAIRMAN, before beginning the Proceedings, expressed his own regret and that of the Meeting that the Patron of the Society, His Excellency the Governor, was not with them, as he had fully intended to be. His Excellency's Private Secretary had sent a telegram from Hambantota to the Secretary of the Society, stating that owing to the arrival of the Duke of Connaught on Sunday, instead of Monday, the Governor regretted that he must go to Kandy on the 14th, and could not, therefore, preside at the Meeting of the Society on the 15th. That explained His Excellency's absence.

2. Mr. G. A. JOSEPH read the Minutes of the previous General Meeting held on December 11, 1906, which were confirmed.

3. Mr. HARWARD read a letter from Mr. E. Alison, on behalf of Lady Ashmore, thanking His Excellency Sir Henry Blake, Patron, and the Members of the Society for its vote of condolence with her on the death of her husband, the late Sir Alexander Ashmore.

4. The CHAIRMAN said he had next to call the attention of those present to the architectural drawings and photographs of ruined structure at Polonnaruwa made by the Archaeological Survey Department. The Head Draughtsman, Mr. Perera, was present, and, after the ordinary proceedings were over, would be able to point out to any one interested various points in regard to those illustrations.

5. Mr. HARWARD read an invitation received from the Seventh International Zoological Congress to be represented at its Meeting to be held at Boston, Mass., U. S. A., from 19th to 23rd August.

MEMBERS.

6. Mr. G. A. JOSEPH announced that the following gentlemen had been elected Members of the Society since the General Meeting held on December 11, 1906 :—Mr. J. Parsons, Director of the Mineralogical Survey, Mr. C. L. Joseph, and Lieut. H. J. Jones, A.O.D.

7. Mr. HARWARD next read the Council's Report for 1906.

ANNUAL REPORT FOR 1906.

The Council of the Ceylon Branch of the Royal Asiatic Society have the honour to submit the following Report for the year 1906 :—

MEETINGS AND PAPERS.

Three General Meetings of this Society have been held during the year, at which the following Papers were read and discussed :—

- (1) "The Coconut Palm in Ceylon: Beginning, Rise, and Progress of its Cultivation," Part I. up to 1660 A.D., by the Hon. Mr. J. Ferguson, C.M.G.
- (2) "Some Survivals in Sinhalese Art," by Dr. A. K. Coomaraswamy, Sc.D.
- (3) "A Lecture on a Sinhalese Painted Box: A Study of Kandyan Art and Artists," by Dr. A. K. Coomaraswamy, Sc.D.

JOURNALS.

One number of the Journal. (Vol. XVIII., No. 56, was published during the year. It contains, in addition to the Proceedings of the Meetings, the following Papers :—

- (1) "Mr. Isaac Augustin Rumpf." by Mr. F. H. de Vos, Barrister-at-Law.
- (2) "Portuguese Inscriptions in Ceylon," by Mr. J. P. Lewis, M.A., C.C.S.
- (3) "Rajasinha I., Parricide and Centenarian: A Review," by Mr. W. F. Gunawardhana, Mudaliyar.
- (4) "Two Old Sinhalese Swords," by Mr. C. M. Fernando, M.A., LL.M.
- (5) "Third Supplementary Paper on the Monumental Remains of the Dutch East India Company of Ceylon," by Mr. F. H. de Vos, Barrister-at-Law.

- (6) "Notes on the Variations of the Copper Massas of Six Sinhalese Rulers," by Mr. J. Still.
- (7) "Note on a Dutch Medal," by Mr. F. H. de Vos.
- (8) "Notes on Paddy Cultivation Ceremonies in the Ratnapura District (Nawadun and Kuruwiti Korales)," by Dr. A. K. Coomaraswamy, Sc. D.
- (9) "The Photography of Colour as applied to obtaining correct Colour Records of Natural History Subjects," by Prof. W. Saville-Kent, F.I.S.

MEMBERS.

During the past year sixteen new Members were elected, viz. :—

Life Members.

D. S. D. Bandaranaike, C.M.G., Maha Mudaliyar.
M. Supramaniam.

Ordinary Members.

H. W. Codrington, C.C.S.
P. D. Warren, Surveyor-General.
Dr. J. W. S. Attygalle.
G. B. Gardner.
F. A. Tisseverasingha, Proctor, S. C.
The Hon. Mr. A. Kanagasabai.
J. P. Obeyesekere, Advocate.
G. D. Templer.
P. T. P. Gunawardana.
G. W. Sturges, M.R.C.V.S.
D. Finch Noyes.
The Hon. Mr. A. Wood Renton.
M. C. F. P. W. Kaviratna.
L. W. F. de Saram.

The following Members have resigned, viz. :—S. M. Burrows, C.C.S., H. L. Moysey, C.C.S., and J. H. Renton.

The Society now has on its roll 213 Members, including 27 Life Members and 10 Honorary Members.

The Council record with regret the death of the following Members :—Messrs. P. Coomaraswamy, H. Freudenberg, and the Hon. Mr. H. Wace.

Mr. Coomaraswamy joined the Society in 1871. He contributed the following Papers to the Society's Journal :—

- (1) "Chilappatikaram : A Tamil Poem," Vol. XIII., No. 44, 1893.
- (2) "A Half-hour with Two Ancient Tamil Poets," Vol. XIII., No. 45, 1894.
- (3) "Gleanings from Tamil Literature," Vol. XIV., No. 46, 1895.
- (4) "King Senkuttuvan of the Chera Dynasty," Vol. XIV., No. 46, 1895.

LIBRARY.

The additions to the Library, including parts of periodicals, numbered 406.

The Library is indebted for donations to:—The Government of India; Mr. J. F. W. Gore; *Revista da Commissao Archeologica da India Portuguesa*; the Siam Society; *Cuerpo de Ingenieros de Minas del Peru*; the Archaeological Survey of Punjab and United Provinces; the University of Colorado; Mr. L. Jones; Mr. Adair Welcker; Mr. M. Rangacharya; Iowa Geological Survey; the Hon. the Colonial Secretary, Ceylon; the Government of Madras; the Linguistic Survey of India; Sir R. C. Temple, Bart.; the Pali Text Society, London; Mr. H. R. Nevill, I.C.S.; the Planters' Association, Ceylon; the Postmaster-General, Ceylon; the Archaeological Survey of Madras and Coorg; Mr. J. H. Hollander, Ph.D.; the Secretary to the Government of India; the Secretary of State for India in Council; Mr. W. D. Whitney; Prof. W. A. Herdman, F.R.S.; the Australian Association for the Advancement of Science; the Archaeological Survey of India; Mr. M. A. C. Mohamad; the Anthropological Society of Australasia.

The following Institutions are on the exchange list, and receive the Society's Journal:—

The Royal Society of Victoria, Australia; the Royal University of Upsala, Sweden; the Royal Geographical Society, London; the Academy of Natural Sciences, Philadelphia, U.S.A.; the Smithsonian Institute, Washington, D.C., U.S.A.; the Bombay Branch of the Royal Asiatic Society; the Buddhist Text Society of India; U. S. Department of Agriculture, Washington, D.C., U.S.A.; the Wagner Institute of Sciences, Philadelphia, U.S.A.; the Geological Survey, New York, United States of America; the Field Columbian Museum, Chicago; the State Archives, Netherlands; the Bureau of Education, Washington, U. S. A.; the Societie Zoologique, Paris; the Anthropologische Gesellschaft Koniggratzer, Strasse, Berlin; the Batavia-asch Genootschap van Kunsten en Wetenschappen Batavia, Java; the Deutschen Morgenlandischen Gesellschaft, Halle, Germany; the American Oriental Society, Conneticut, U.S.A.; the Royal Society of New South Wales, Australia; the California Academy of Sciences, U.S.A.; La Societie Imperiales de Naturales de Moscow, Russia; the China Branch of the Royal Asiatic Society; the Asiatic Society of Japan; the Royal Asiatic Society of Great Britain and Ireland, London; the Indian Museum, Calcutta; the Madras Literary Society, Madras; the Asiatic Society of Bengal, Calcutta; the K. K. Naturhistorischen, Austria; the Musee Guimet, Paris; the Zoological Society of London; the John Hopkin's University, Baltimore; the Geological Society of London; the Anthropological Institute, London; the Oriental Society, Pekin; the Geological and Natural History Survey of Canada; the Royal Colonial Institute, London; the Straits Branch of the Royal Asiatic

Society, Singapore; the Koninklijk Instituut voor de Taal-Land-en Volkenkunde van Nederlandsch-Indië, Holland; the Royal Geographical Society of Australasia (South Australian Branch), Adelaide; the Korea Branch of the Royal Asiatic Society; the Techno-Chemical Laboratory, Bombay; the University Library, Cambridge; the Director-General of Archæology, India.

COUNCIL.

Two Members of the Council of 1905, viz., the Hon. Mr. S. C. Obeyesekere and Mr. H. White, by virtue of Rule 16 are deemed to have retired by seniority; and under the same Rule Mr. P. Ramanathan and Dr. J. C. Willis by least attendance have vacated their places. Of these gentlemen, two being eligible for re-election, the Hon. Mr. S. C. Obeyesekere and Dr. J. C. Willis were re-elected; and the vacancies in the Council were filled by the appointment of the Hon. Mr. P. Arunachalam and Dr. A. K. Coomaraswamy.

Dr. A. Willey, D.Sc., F.R.S., Director, Colombo Museum, was elected a Vice-President, and his place in the Council was supplied by the appointment of Mudaliyar S. de Silva, Chief Translator to Government.

The vacancy caused by the resignation of Mr. H. F. Tomalin was filled by the appointment of Mr. E. B. Denham, B.A., C.C.S.

ACCOMMODATION.

The Council note that the extension of the Museum is to be taken in hand in 1907; and trust the work will be pushed on so as to afford much-needed room for the expansion of the Colombo Museum, its Library, and the Library of this Society.

ARCHÆOLOGICAL.

The Archæological Commissioner has been so good as to favour the Council with a summary of the operations of the Archæological Survey during 1906 at Anurâdhapura, Polonnaruwa, and Sigiriya.

Further, he has permitted a set of beautiful coloured drawings, on a large scale, of some of the chief ruins of Polonnaruwa, made by the Archæological Survey Draughtsmen, as well as several photographs to be exhibited at this Meeting.

I.—*Anurâdhapura.*

(1) *Clearing Jungle.*

The moiety of the annual clearing vote for Anurâdhapura, allotted to the Archæological Commissioner for keeping ruined areas outside Town limits free of jungle growth, was expended on the clearing of under growth and weeds in the ruined reservations at Abhayagiriya, Mirisavetiya, Elala Sohona, Tisavewa, Vessagiriya, Jetawanarama, and on the Outer Circular Road.

As in previous years, other important areas at Anurádhapura and Mihintale had to be left uncleared for want of sufficient funds to sweep all.

The Government has been moved to augment the annual grant.*

(2) *Excavations.*

By the order of the Government, excavation at untouched sites was temporarily suspended during 1904 and 1905, and the Archaeological vote reduced in proportion.

The Department "harked back" to the re-cleaning of the very numerous sites, which had been excavated in the fifteen years since the Archaeological Survey was commenced in 1900, and much needed fresh attention.

Since January, 1906, renewed steady progress has been made both at Anurádhapura and Polonnaruwa.

(a) *Mirisavēṭiya*.—Excavations were resumed at the point where they ceased in 1903. In 1902 five monasteries (including the chief *pirivēna*, or monks' residence, of the *saṅghārāma*) were worked off. These lie (except the large *pirivēna* on the west) to the north-east and east of the Dágaba.

In 1903 a series of four more monasteries, stretching along the south side of the Dágaba, was unearthed, besides the handsome northern *mandapaya*, or portico, to the Dágaba's *maḷuwa*, and the massive slab wall and gangway of its northern side.

The early part of 1906 was given to the completion of the *Mirisavēṭiya* ruins. Starting from the south-west of the Dágaba, four additional monasteries to the west, and a fifth outlying on the south-west, were completed.

These *Mirisavēṭiya* monasteries, fourteen in all, which face towards the Dágaba, and surround it except to the north, are most uniform in plan. Each has its own entrance porch, directly behind which stands the *vihāré* with satellite *pirivēna* (here only two instead of the usual four) lying off the front angles, and an occasional extra building or two. The stonework is in the simplest style. There is a marked general absence of that elaboration in the carved accessories to stairs (moonstones, terminals, balustrades), so noticeable elsewhere.

With the exception of one somewhat extensive slab-revetted site lying off the south-west corner of the Dágaba *maḷuwa*, the only ruins of any size are situated to the north-west. The largest of these was a rectangular building supported by some 100 pillars, probably intended for general use. The monasteries on the east contain an "alms hall," with sunk paved court in the centre, in which is one of the smaller monolithic "dug-outs," or stone boats, peculiar to Anuradhapura and Mihintale.

The excavation of the *Mirisavēṭiya* area was rounded off finally by the unearthing of the three remaining porticoes of the Dágaba's square *maḷuwa* on the west, south, and east. The two

* An extra sum of Rs. 2,000 has been sanctioned from 1908.

former lay very deeply buried under *débris*, piled up when the quadrangle was freed of earth some years ago.

These *mandapa* differ from those of the three great *Dágabas* (Ruwanveli, Abhayagiriya, Jetawanárāma) in admitting directly on to the raised paved platform instead of merely into the *pita-vidiya*, or outer procession path, of the quadrangle.

Altogether, between seventy and eighty buildings have, from first to last, been excavated round Mirisaveṭṭiya *Dágaba*.

(b) *Thūpārāma Area*.—The ruins surrounding the *Thūpārāma Dágaba* were finished in 1895–96.

To the north-east of the Inner Circular road and immediately to the north of the present Hospital premises (which were gradually encroaching upon them) a quadrangular arrangement of pillar stumps showed aboveground, pointing either to a four-sided set of monks' cells, or to a square "alms hall."

The site was therefore excavated in 1906, and proved to be a large quadrangle, once divided up into rooms or cells for monks (such as those discovered already at *Thūpārāma* and *Ruwanveli*), facing inwards towards a central, open, *midula* or compound.

The building is of no architectural interest, and was obviously of late erection as it overruns older walls. A small *dágaba*, or *asohona*, jostles this quadrangle, and there are one or two minor ruins close by.

(c) *Vessagiriya*.—During the absence of the Archæological Commissioner at Polonnaruwa, a start was made in July by his Assistant at this very ancient site—a tree sheltered outcrop of gneiss rock and boulders adjoining the high road from Anuradhapura to Kurunegala, about a mile to the south of the Sacred Bo Tree enclosure (*Udamaluwa*).

Ruins of structural buildings and *pokunū* are traceable around the cluster, evidently belonging to a large monastery. A score or more of caves occur in two of the three groups of rock boulders which stand, slightly separated, in line north and south. At an earlier period the caves alone served for shelter to hermit monks, as inscriptions above their brows testify.* If the *Mahawansa* is to be relied on, the Vessagiriya Vihare, as well as the not far distant Isurumuniya Vihare, were built by King Dewanampiya Tisa in the third century B.C.

The year's work at Vessagiriya was confined to the smallest and most northerly group of these rocks. Excavation has gradually disclosed it to be the site of an important rock-placed *pirivena* of a Buddhist monastery, which existed at least as late as the tenth century.

There can be no question as to the period when the buildings which once occupied this site were erected. Everything recalls the citadel on Sigiri-gala constructed by the parricide Kásyapa I. in the fifth century A.D. Steps, walls, mouldings all bear out the comparison. The two inscriptions of Mahindu IV. (975–991 A.D.),

* A dozen or so of these cave records have been published in the *Epigraphia Zeylanica*, Vol. I., Part I.

found at Vessagiriya some years ago,* allude to "Bo Upulvan Kasubgiri Vehera," which the *Mahawansa* records was built by Kasyapa I. (A.D. 479-497). So that architecture, lithic record, and ancient chronicle unite perfectly in confirming the identification of this site nearly fifteen centuries old.

Save perhaps the Toluva Monastery and the "Buddhist Railing" site near Abhayagiriya Dágaba, these ruins at Vessagiriya are the oldest yet brought to light by the Archæological Survey at Anurádhapura.

II.—Polonnaruwa.

Archæological work was resumed at Polonnaruwa in June, and vigorously pushed on until the end of September.

(1) *Clearing.*

A gang of Sinhalese continued, and completed, the clearing of the outer rampart of the ancient city, working, from the point reached previously, southwards to its junction with the bund of Topavewa tank, a short distance to the south of the Promontory.

Subsequently the Sinhalese coolies widened the area already cleared round the "Potgul Vehera" Monastery, a mile to the south, and the ruined viháre (mistermed "Demala Maha Seya") three and a half miles to the north, of the Promontory besides re-clearing the extensive area embracing the "Rankot Vehera," "Jetawanaráma," and the "Kiri Vehera." This ground teems with ruins, those near the two large Dágabas being of considerable size and importance.

All this preliminary work will greatly aid the regular survey of ancient Polonnaruwa which, upon the representation of the Archæological Commissioner, has been sanctioned by the Government, and is in hand.

(2) *Excavations.*

(a) *Quadrangle with Ruins.*—During June the force was fully occupied in most desirable "task work"—clearing away the high *débris* bank hiding the western wall of the large raised quadrangle on which "Thúpárama," "Waṭa-dá-gé," and other ruins stand.

The whole space between the present main road and the high rubble ramp of the quadrangular site was levelled, freed of tree stumps, brickbats, &c., and smoothed.

The ancient approach to the several shrines by a staircase and entrance portico on the west has thus again been opened up.

The change in the appearance of the ruins upon the quadrangle, as now viewed from the road, is very marked.

(b) *"Potgul Vehera" Monastery.*—From July excavations were transferred to the (so-called) "Potgul Vehera," a mile or more from the Promontory. This, so far as known, is the only group of ruins to the south of the ancient city.

* Recently translated and edited by Mr. Wickremasinghe in the *Epigraphia Zeylanica*, Vol. I., Part I.

The "Potgul Vehera" and its appurtenant ruins form one monastery, and were doubtless connected with the granite-cut ascetic (commonly misnamed King Parākrama Báhu) and small *dágaba*, about two hundred yards to the north, where some work was done in 1904.

These ruins and the adjoining rock-hewn figure (11 ft. 6 in. in height) were briefly alluded to in the "Summary of Operations" for that year.

"South of the statue some two hundred yards, and within its direct purview, is situated a unique ruin now known as the 'Potgul Vehera' or 'Library Dágaba.' The chief feature is its circular back room, once domed, on the interior wall of which still exist traces of painting.

"This part of the ruin was gutted some years ago by villagers working under the orders of a Kandyan Chief, since deceased; and has been left exposed to the very foundations."*

Excavations were this year (1906) begun from the back, round the outside of the circular portion of the building, and gradually carried north and south along the rectangular vestibule which unites with the "rotunda" on the east front.

The outer face of the ruin was found to be embellished by pilasters and a series of false altars with niches above a moulded basement.

The ornamentation is in lime stucco, as at "Thúpárama" and "Jetawanárama;" but simpler. There is an entire absence of those elaborate zoophorous band-courses (dwarfs, lions, *hansas*, &c.) to be seen at the larger shrines. On the whole the mouldings, &c., are well preserved.

The back room of the structure was originally domed in the overlapping style of brick and mortarwork, of which the vaulted roof of "Thúpárama" Viháre furnishes a still existing example. The walls are even now sixteen feet high in places, and exhibit clearly at top the bellying shape they assumed from the spring of the dome.

What is left of the painting on the wall inside shows faint signs of flowers, &c.

Through a breach made in the circular wall, the room had been dug out by treasure seekers down to its foundations 3 ft. 6 in. below the stone sill of the only entrance from the vestibule, a doorway now choked with *débris*. Its real object is, therefore, unascertainable.

The "Potgul Vehera" stood on a rectangular *maḥuva*, or terrace, stretching about 43 yards by 37, approached on the east. Its revetment still displays remains of a series of fronting elephant caryatides in bas-relief.

At each of the four corners of the *maḥuva* is a diminutive pseudo-*dágaba*. These definitely fix the ruins as *Buddhistic*, not *Hindú*, though not a vestige of any images has been unearthed.†

* C. A. S. Journal, vol. XVIII., No. 56, 1905, p. 339.

† Confirmed by a short inscription of Chandavati, chief queen to Parākrama Báhu, cut on a fallen door jamb.

Below, and on three sides at least of, the raised terrace holding the shrine are about a dozen or more buildings, facing inwards, evidently the *piriven* of the resident priests, the whole enclosed by a wall.

Between this and the outermost wall* (*sima pahura*) of the entire monastery lies a low bank of *débris*. This has still to be laid bare.

The whole area embraced by this monastery covered about three acres.

(c) "*Siva Dévalé*."†—This beautiful little stone shrine, in Dravidian style of architecture, stands at the north-east corner of the old city. It is far better preserved than the other, and larger, *Siva Dévalé* (strangely termed by guide books "*Dalada Maligawa*") near the main group of Buddhist ruins ("*Thúpárama*," "*Wata-dé-gé*," &c.).

The roof of its vestibule has partially fallen in, and the side walls are bulging in places. But the main part of the structure (except to a small degree in the north wall, and a few pieces of the coping and dome) remains nearly as perfect as when erected.

The shrine itself is 26 ft. in height and square (20 ft. 6 in.) in shape (lengthened by its vestibule to 29 ft. 3 in. in front) with an irregular octagonal, dome-like, roof of limestone which, now blackened by age, must once have contrasted strikingly with the dark granite of the walls.

The *sanctum* is windowless, and entered by a single door from the vestibule on the east. Inside it tapers up in angular, chimney-form, wherein colonies of bats have revelled undisturbed for centuries.

The *lingam* and *argha*, discovered outside the "*Siva Dévalé*," have been replaced in the centre of the shrine.

Some rough digging appears to have been done here in 1885-86; but no attempt was made to drain off the rain water, which during the north-east monsoon collects round the base of the shrine, and must tend to loosen its foundations. The *Dévalé* stands 3 ft. or more below the present ground level; and it was highly important for its protection, (after digging out the whole of the earth which has in course of years silted up and filled the roughly walled premises surrounding the building), to carry a drain thence through the neighbouring city rampart into the low ground outside. This drain was cut at the end of the past season.

Two smaller subsidiary shrines were built towards the back of the premises. That to the south-west is sacred to *Ganesha*, whose image was unearthed *in situ*.

(3) Restorations.

No restoration work was done at Polonnaruwa in 1905, owing to the same reason as affected excavations.

* This exterior wall measures nearly 360 ft. each way.

† Hitherto misnamed "*Vishnu Dévalé*."

(a) "*Thúpárama*."—By the close of the season in 1904 the partially fallen back wall of "*Thúpárama Viháre*" was rebuilt in brick and cement, with concrete filling (lime, cement, and pebble), to a height of some 12 ft. from the floor. All vegetation was also rooted out from the walls; and the serious cracks temporarily protected from percolation of rain water by bricking them at top.

These precautions have prevented further damage ensuing to this fine brick ruin.

A fresh start was made this year (1906) in filling in the dangerous vertical cracks through the back wall, and continuing its inner face upwards until it should re-connect with the vaulted roof, open and unsupported, at the west end of the building. Here the soffit of the arched roof had lost a great number of voussoir bricks, and was holding only by the strength of the thick, tough, mortar used with the irregularly fixed bricks.

In widening the cracks sufficiently to permit of their being re-united from end to end, the interior of the walls revealed loose, disintegrated, lime concrete which crumbled to the touch. All this ancient "shoddy" core had, therefore, to be removed, augmenting the cracks into wide fissures in places (at one point 6 ft. by 5 ft. by 4 ft.), and very greatly adding to the labour of re-uniting the walls.

Before work closed for the year the three great cracks had been joined up, and the west wall rebuilt from the bottom to match the others, i.e., first vertical, then gradually projecting as each course of bricks slightly overlaps the one below, and finally once more vertical at the level of the spring of the real arch of the roof.*

The broken end of the arch has been most carefully united to the back wall, as upon correct and strong junction here will wholly depend the permanent stability of the *Viháre* roof and its massy superimposed square tower, the north-west corner of which is also cracked.

It is proposed next season to deal with the remaining cracks elsewhere, and specially with the great crack which runs along the soffit axis of the arched roof.

But the roof and west wall of the "*Thúpárama*" ruin are now practically safe for the time being with the work already done.

The narrow, veiled, staircase, 2 ft. in width, which pierced the south wall of the vestibule rising east had become so worn and dangerous that its immediate renewal was desirable. The steps were accordingly relaid in cement.

At the head of this staircase, was a very cramped landing at right angles, and further steps (all now broken away) which mounted west on to the flat roof of the *Viháre*. The almost total collapse of the vestibule's arch has left this part of the ascent exceedingly risky, and some safeguard must be provided.

* In all some 7,700 cubes of masonry have been so far rebuilt.

(b) "*Waṭa-dā-gé*."—In 1904 the following progress was made in the restoration of this magnificent specimen of Buddhist stone architecture :—

The north and east steps were relaid level. The latter had to be wholly taken down and reset, after filling in a deep tunnel which had been formed by the wash of years under the stone pavement of the upper floor round the central *dágaba*.

Along the north-east quadrangle the entire moulded revetment of the handsome stone stylobate, and the slab wall above it, were reset in lime mortar pointed with cement. Vegetation had pierced the joints and displaced most of the stones. The broken octagonal shafts of the stone columns, between the slab wall and the inner high brick wall, were also joggled, cemented together, and replaced.

Similarly, about two-thirds of the north-west quadrant was completed before the season of 1904 closed.

A portion of the undulating stone pavement of the circular *maḥuwa* round the stylobate required taking up and relaying in lime mortar.

Near the *dágaba* within the circular wall two more of the four cardinal seated granite Buddhas, found broken into many pieces, were neatly cemented.

The past season (1906) witnessed material advanced in the restoration of the "*Waṭa-dā-gé*."

The relaying of the pavement of the circular *maḥuwa* has been completed from the east to the west stairs on the north side; the west steps, and the unfinished portion of the north-west stylobate, with its slab wall and column shafts, reset; and the entire portico (walls, steps, pavement) on the north rebuilt.

Many of the pavement slabs are very heavy, and every stone has had to be lifted and relaid, the levels being so arranged that the slope is outwards and inclined to the *pili*, or spouts, which project through the *maḥuwa* revetment wall at regular intervals.

The west stairs had suffered terribly from fire, probably when the trees covering the site, felled in 1885-86, were foolishly burnt instead of being cut up. Both balustrades—the left (north) one especially—are spilt and their surface ornament (lion and pilaster) greatly damaged.

Fortunately the steps. "moonstone" slab at foot, and both *Nāga dwarf* terminals, remain intact. A good deal of earth and vegetation, which had crept in behind the steps and balustrades, had to be removed. It was necessary to raise, re-level, and make a fresh bed for the steps which had sunk, and to straighten the guardstones.

The revetment slabs of the "*Waṭa-dā-gé*" stylobate just north of the western staircase also bear sad traces of fire. They lay on the pavement in disorder, and had to be sorted, before being raised, and fitted piece-meal in their original places.

The portico on the north, through which the lower circular *maḥuwa* of the "*Waṭa-dā-gé*" is entered, was in hopeless ruin in 1903. The slab faced walls were then temporarily reset and

supported by log struts to prevent the heavy stone again falling. It was finally and well reconstructed last season.

The south-west and south-east quadrants of the stylobate will be, it is hoped, restored in 1907. Whilst the south-east quadrant is the best preserved of the four; that to the south-west quadrant is quite the most damaged, and will need wholesale rebuilding from its original slabs, &c., lying about, greatly broken.

(c) "*Rankot Vehera*" and "*Kiri Vehera*."—These the two largest existing Dágabas of Polonnaruwa are, on the whole, in excellent preservation.

In 1905 the bell (*garbha*) of both was freed of *figus* and other trees, which had penetrated the masonry everywhere, and were gradually loosening the brickwork.

Towards the close of the past season (1906) attention was given to the square tee (*hatares kotuwa*) and pinnacle (*kota*) of both Dágabas.

They were found to have suffered, not only from tree roots and vegetation that had got firm hold of their wall surface, but from considerable corrosion as well, due to the south-west gale which beats fiercely upon them for five months of every year.*

It was desirable to affect repairs without delay.

These were carried out during October (after the still north-east monsoon set in). At the same time Mr. D. A. L. Perera, Head Draughtsman, Archaeological Survey, made, as directed, sketches, and took full detail measurements of the *hatares kotu* and *kot* of both Dágabas to be drawn to scale when these Dágabas come to be dealt with by the Archaeological Survey. It is hoped that next season Mr. Perera may be able to complete similar drawings of the several chapels, or offset altars, which stand round the base of the Dágabas.

Their true periphery will be ascertained by the survey of Polonnaruwa now in hand.

III.—*Sigiriya*.

Beyond the annual clearing of the citadel on the summit and of the terraces below the Rock, little work was done at Sigiriya in 1906.

The reduction of the Archaeological vote for 1905 prevented arrangements being made for the usual supply of bricks, lime, and sand for the continued restoration of the "gallery," &c.

(a) "*Gallery*."—With such materials as remained from 1904 the stairs were rebuilt last season as far as the foot of the iron ladders leading to the summit of the Rock.

* This "scour" is very noticeable also on the outer face of the "Thūpārāma" and Jetawanārāma ruins at Polonnaruwa; and at the Jetawanārāma Dágaba. Anuradhapura, is so advanced as to seriously endanger the stability of the pinnacle.

Some protection had to be afforded at the lowest ladder to ensure against accident on the narrow space where it rises from the steeply sloping sides of the ruined "Lion-staircase-house."

A four-feet half-wall was, therefore, built, curling round the ladder on the off side so as to unite with the Rock.

This necessitated swinging the lower ladder itself inwards at right angles to the Rock's face, and a small landing stage being added between it and the upper ladder.

(b) "*Fresco Pockets*."—The netting in of the two "Fresco Pockets" was virtually finished in 1905.

The wire netting had only to be tightly stretched and screwed down, an iron frame door with padlock fixed, and the roughly laid floor of the caves smoothed in cement. Except the door, these few remaining touches were put to the work in the "pockets" during the short season at Sigiriya of 1906.

IV.—*Epigraphy.*

The lithic records of Ceylon are yearly disappearing owing to the invasion of its wilder parts by ignorant and unscrupulous treasure seekers, and their wanton destruction of inscriptions under the fatuous belief that these mark treasure spots.

In England Mr. Wickremasinghe has still to issue Part II. of the *Epigraphia Zeylanica*.^{*} Parts III. and IV. are also overdue. This slow progress justifies the Archæological Survey in collecting and storing material for future use before it is too late.

Nearly all the inscriptions of the North-Central Province have been eye-copied, and of the majority ink "squeezes" taken, as well as photographs where practicable.

But there is a vast field of epigraphical work almost untouched in the Northern, North-Western, Eastern, Central, and Uva Provinces, besides some records in the Western and Southern Provinces.

The Government has granted from 1907 a sum of Rs. 1,000 for the systematic work of copying yearly, until completed, of inscriptions throughout the Island, still unrecorded.

The overseer specially trained by the Archæological Commissioner for this work will tour through the several Provinces to make "eye-copies" and "squeezes" of all known inscriptions. As his work comes in, the "estampages" will be photographed; and a permanent record thus preserved, to be utilized whenever desired.

V.—*Archæological "Finds."*

The large and varied collection of metal work and coins collected by the Archæological Survey in the course of fifteen years' work was overhauled, chemically treated (to prevent further corrosion), and docketed by the Assistant to the Archæological Commissioner in the course of the year.

^{*} This Part has since appeared (1907).

The "Catalogue of Finds," prepared by Mr. Still, and an Album of photographic illustrations, have been handed over to the Director of the Colombo Museum, to be issued as a publication of that Department.

In December, upon the decision of the Government to transfer all portable "finds" made by the Archæological Survey to the Colombo Museum—there being no local Museum at Anurádhapura worthy the name—the greater part of the antiquities hitherto stored at Anurádhapura (stone carvings, bricks and pottery, metal work and coins, crystals, &c.), were sent down to Colombo. Mr. Still will arrange these at the Museum.

When the extension of the Museum building is completed, it is hoped that it may be possible to exhibit a more complete series of stone inscriptions than at present shown.

Many inscribed slabs and pillars are collected in Anurádhapura ready for transfer to Colombo.

PROSPECTS FOR 1907.

The following Papers have been received:—

1. Translation of "Barros and Couto on Ceylon," by Mr. D. W. Ferguson.
2. "The Discovery of Ceylon by the Portuguese," by Mr. D. W. Ferguson.
3. "Kandyan Music," by Mr. S. D. Mahawalatenna.
4. "Sumptuary Laws and Social Etiquette of the Kandyans," by Mr. T. B. Parnatella.
5. "Kandyan Medicine," by Mr. T. B. Bakinigahawela.
6. "The Origin of Tamil Vellalas," by Mr. V. J. Tamby Pillai.
7. "Joan Gideon Loten, F.R.S., the Naturalist, Governor of Ceylon (1752-57), and Ceylonese Artist de Bevere," by Mr. D. W. Ferguson.
8. "Notes on a Find of Eldings at Anuradhapura," by Mr. J. Still.
9. "Roman Coins found in Ceylon," by Mr. J. Still.
10. "Some Early Copper Coins found in Ceylon," by Mr. J. Still.
11. "Nuwara-gala: Eastern Province," by Mr. F. Lewis, F.L.S.
12. "Portuguese Ceilao at the Beginning of the XVII. Century: A Sketch," by Mr. P. E. Pieris, M.A., C.C.S.
13. "The Age of Parakrama Bahu," by Mr. E. W. Perera, Advocate.

FINANCES.

The following is the balance sheet showing the receipts and expenditure of the Society for 1906:—

Royal Asiatic Society, Ceylon Branch.—Balance Sheet for 1906.

RECEIPTS.		Rs.	c.	EXPENDITURE.		Rs.	c.
Balance from 1905	..	..	92 47	Books Account	..	1,292	50*
Sale of Publications	..	..	70 21	Charges Account	..	372	71
Interest on Fixed Deposit (Rs. 2,000)	..	..	69 95	Establishment and Salaries	..	312	50
Life Membership Payments	..	..	157 50	Printing and Binding Account	..	548	41
Entrance Fees	..	..	63 0	Balance to 1907	..	476	57†
Annual Subscriptions:—		Rs. c.					
1902	..	21 0					
1903	..	31 0					
1904	..	42 0					
1905	..	175 81					
1906	..	886 50					
1907	..	35 25					
			1,189 56				
Government Grant for 1905	..	..	500 0				
Donation by Dr. Coomaraswamy for prizes	..	..	60 0				
Amount transferred from Rs. 2,000 in Fixed Deposit to Current Account	..	..	800 0				
		Total ..	3,002 69			Total ..	3,002 69

* Including Rs. 1,125 for translation of Barros and De Couto.

† Beside in Fixed Deposit Rs. 1,218*22 (being balance Rs. 1,200 and interest Rs. 18*22), making total balance Rs. 1,634*79.

RONALD H. FERGUSON,
Honorary Treasurer.

8. Mr. D. B. JAYATILAKA proposed the adoption of the Report.
 9. Mr. E. W. PERERA seconded.—Carried.

ELECTION OF OFFICE-BEARERS.

10. Mr. R. H. FERGUSON proposed that the following Office-Bearers be elected for the year :—

President.—The Hon. Mr. J. Ferguson, C.M.G.

Vice-Presidents.—The Hon. Mr. J. P. Lewis, M.A., C.C.S.
 Dr. A. Willey, M.A., D.Sc., F.R.S.; and Mr. P. Freudenberg, J.P.

Council.

Mr. C. M. Fernando, M.A., LL.M.	The Hon. Mr. S. C. Obeyesekere.
Mr. A. M. Gunasekera, Mudaliyar	The Hon. Mr. P. Arunachalam, M.A., C.C.S.
Dr. A. J. Chalmers, M.D., F.R.C.S.	Mr. Simon de Silva, Gate Mudaliyar, Chief Translator to Government.
Mr. C. Drieberg, B.A., F.H.A.S.	The Hon. Mr. G. M. Fowler, C.M.G.
Mr. R. G. Anthonisz, Government Archivist.	The Hon. Mr. Justice A. Wood Renton.
Dr. W. H. de Silva, M.B., C.M., F.R.C.S.	Mr. P. E. Pieris, M.A., C.C.S.

Honorary Treasurer.—Mr. Gerard A. Joseph.

Honorary Secretaries.—Messrs. J. Harward, M.A., H. C. P. Bell, and Gerard A. Joseph.

11. Dr. A. NELL seconded.—Carried.

THE PRESIDENT'S SPEECH.

12. The PRESIDENT:—It is my pleasing duty once more to return thanks in the name of the Office-Bearers of the Society for the honour you have just conferred in unanimously electing us to our several posts. We all trust that the minor changes made during the year may tend to the increased usefulness of our Society.

We begin the year with 213 members—a number which compares favourably with that of the Asiatic Society of Bengal, which has 407 on its roll.

We, in Ceylon, have certainly had great encouragement of late in the number of acceptable Papers made available, there being no fewer than thirteen, as you have heard, ready for reading.

One by Mr. D. W. Ferguson of Croydon, now in the hands of the printer, is on the "First Discovery of Ceylon by the Portuguese in 1506," and was sent out by the author so far back as May last, but we regret could not be read or disposed of, so as to be included in our volume for 1906, to which, of course, it properly belongs. The death of the Government Printer and some difficulty in deciding about fitting illustrations in the absence of Mr. Harward and myself in England caused delay.

Another important work undertaken by the Society, and shortly to become available, is Mr. Ferguson's annotated translation of the parts of Barros and de Couto's History of Portuguese India bearing upon Ceylon.

I regret to say that it has not been possible for me to complete the second and more practically important part of my Paper on "The Coconut Palm in Ceylon: Its Spread and Cultivation in Dutch and British Times;" but I have a mass of material well in hand, and must hope to overtake the compilation during the present year.

Meantime, it is a matter for congratulation—thanks to the energy of our Editor, Mr. H. C. P. Bell, and of his co-Secretaries, Mr. Harward and Mr. Joseph, and of the ready co-operation of the Government Printer, Mr. Cottle, and his *locum tenens*, Mr. Richards—that, for the first time in our history, I believe, the Journal for the past year has been published immediately after its close, and copies placed in the hands of Members before the Annual Meeting.

I referred last year to the need of a full and final anthropological investigation in reference to our wild or cave-dwelling Veddas, and to the regret felt that the Cambridge "Anthony Wilkins" student had to go to the Andamans in place of coming to Ceylon. Since then we have been interested to learn of the re-arrival here of the Messrs. Sarasin for further investigation, and still later of a Lady Professor, Madame Selenka, from the Berlin Academy of Sciences, with a competent Assistant in Professor Moszkowski to make such study of the Veddas as time and opportunity will permit before going on to Java. I learn from our Secretary, Mr. Joseph, that he was able to place the Lady Professor and her Assistant in communication with Mr. Herbert White, Government Agent of Uva (a Member of our Council) and with Mr. E. F. Hopkins, Agent for the Eastern Province, both of whom have promised to give every possible assistance in studying the manners, customs, ceremonies, and language of the Vedda. Although fifteen years ago the brothers Sarasin conducted their researches in Uva, below Lunugala, it is now considered that there are few or no genuine Veddas in this Province, they having intermarried with the villagers. Our present visitors are therefore to pass into the Eastern Province to two or three points where the officials consider some real, unsophisticated Veddas are still to be found. We trust success will attend the scientists' efforts, but clearly the time at their disposal will prevent exhaustive final work, and it is a question worthy the consideration of the Council of this Society as to whether the Ceylon Government should not be moved to originate a full investigation ere it be too late for ever.

It is very satisfactory to know that since I last addressed you it has been decided that Colombo is to have a proper well-equipped Observatory as befits its position as the great and most central Port in the Indian Ocean. We are also rejoiced to see that the urgent indispensable work of extending the Museum building—on the design approved by Mr. Smither—is to be taken in hand this year, a vote to account of Rs. 40,000 having been passed and the site having been already marked out. It is quite clear that all the

additional space provided will be most fully in demand—indeed already, I believe, some of our friends of the “Ceylon Society of Arts” are wondering if space could be made in the Museum building for a limited collection of paintings, if such should be brought together, as the nucleus of a future national collection. The Members of this Society, I feel sure, will be in full sympathy with this aspiration; but whether the space can be made available is another matter to be considered hereafter.

In view of a recent decision of the Council of this Society, on an application from Government, it is satisfactory to have an opinion from Mr. D. W. Ferguson by a recent mail to the effect that “It will be a thousand pities if the Ceylon Government do not wait for Dr. Geiger’s edition of the *Mahavamsa* before printing a new edition of the English translation. Wijesinhe’s edition”—he adds—“is utterly inadequate.”

This Society may well take an interest in the completion of Dr. Herdman’s great work on our Pearl Oyster Fisheries, Parts IV. and V., having appeared since I referred to the subject in my last year’s address. The great permanent value of the large number of reports by the great experts of the day on the Marine Biology of Ceylon cannot be over-estimated, and the Government as well as the Royal Society may well be congratulated on the result. Mention should be made of the “Finds” of the Archæological Survey brought to the Museum during the past year and filling no fewer than three cases. Photographs of the same lie on our table to-night; but all who possibly can should make a point of examining the originals, which make a valuable addition to the Museum Collection. In the Museum generally progress has been made; but more room is the urgent need. The headquarters of the Mineralogical Survey are now in the Museum, where Mr. Parsons and his Assistant work. There are several bits of useful work before the Members as yet untouched; but for this I must refer to my address in last year’s Journal.

Meantime, with reference to Mr. Bell’s long and able summary of his archæological operations, just read to us, I wish to direct attention specially to one point, namely, the wholly inadequate vote made by Government at present for *restoration* work. This is, I believe, only Rs. 5,000 in all, whereas the Indian Government votes for this single purpose Rs. 132,500, or about double the total Archæological Survey vote for Ceylon. Now the small sum allowed in Ceylon is becoming a serious question from a practical point of view, and for this reason Mr. Bell who, for eighteen years has devoted himself with so much enthusiasm to this archæological work, is getting on in years; his time for pension is, in fact, within sight, even if the Government, as we hope it may, secure his services as Archæological Commissioner until 1911, when he will be sixty years of age, or why not indeed (as Mr. Bell is still hale and hearty) until 1916. But the point is, that it will be a thousand pities if the Ceylon authorities do not make the fullest use of Mr. Bell’s great experience and ardour, during whatever time remains for him at his present work, by enabling him to supervise far more extended works of restoration. With Rs. 5,000

he can only continue at Sigiriya and restore one or two ruins at Polonnaruwa ; but if this annual vote were increased, say, to Rs. 25,000 or even Rs. 20,000 for the next few years, the necessary work of restoration could be got through at an accelerated pace at Polonnaruwa, at Anurádhapura, and at some other places, before the invaluable experience, gained in the past score of years by the present Commissioner, is lost to us. I sincerely trust that Sir Henry Blake may be able to make this provision in His Excellency's next Supply Bill as a truly wise and economical as well as most desirable mode of forestalling what must be regarded as inevitable expenditure at some time or other.

I began by congratulating you on an increased roll of members. 213 as compared with 407 for Bengal ; but when we realize how much more of useful work the Society could do (in getting further translations or annotated editions of old works, or reprinting past Journals now out of print, and in printing papers bearing on Ceylon in other Society's transactions) if funds were only available, and when I mention to you that the Bengal Society had a credit balance a few weeks ago, of more than ten times the amount in our hands in Ceylon, I would plead for further support to our Society. I think, for instance, that every intelligent Member of the Public Service of a certain status (as well as of the general community) ought to belong to the Society, with a view to learning as much as possible of the history of the people and of the land we live in, and so securing that sympathetic insight and local knowledge which cannot fail to re-act beneficially in many ways on the discharge of public duties.

13. Mr. HARWARD next read the following Paper by Mr. F. Lewis on "Nuwara-gala : Eastern Province." Printed copies of the Paper with illustrations were distributed to the audience.

NUWARA-GALA, EASTERN PROVINCE.

BY F. LEWIS.

ABOUT the middle of 1906 I had occasion to examine the forests to the south of the Badulla-Batticaloa road in connection with forest matters. I had with me the excellent topographical maps prepared by the Surveyor-General to assist me in the location of certain points. Among others a large group of hills is shown to the southward of Maha-oya that from their situation indicated that as a whole they were of importance with respect to water supply to a system of irrigation works further to the eastward. I decided therefore to make a preliminary inspection of this cluster of mountains, and with that object in view I arranged a short expedition in company with my Forest Ranger, the Ratemahatmaya, and the Arachchi of Pollebedda village.

Starting from the Maha-oya resthouse, we first crossed the dry bed of the oya of the same name, and proceeded through a very superior forest for about six miles, when we reached a little tank that the Arachchi explained was for the irrigation of a small plot of fields owned by the people of Pollebedda.

We reached these fields by about 11 A.M., and camped for breakfast on the banks of the Rambukkan-oya, that at the time of my visit was perfectly dry. This is a broad stream when in flood, and takes its rise beyond the group of hills called Sitala Wanniya, which I shall have reason to mention later. The banks of the stream are lined with a curious mixture of plants, leading me to suspect, on finding the green bamboo and enormous dadap trees, that they were "escapes" from earlier plantations and inhabited lands.

After breakfast we followed what seemed to be a "game path" that ran eastwards, through very large high forest, broken here and there with large masses of rock. After

Map

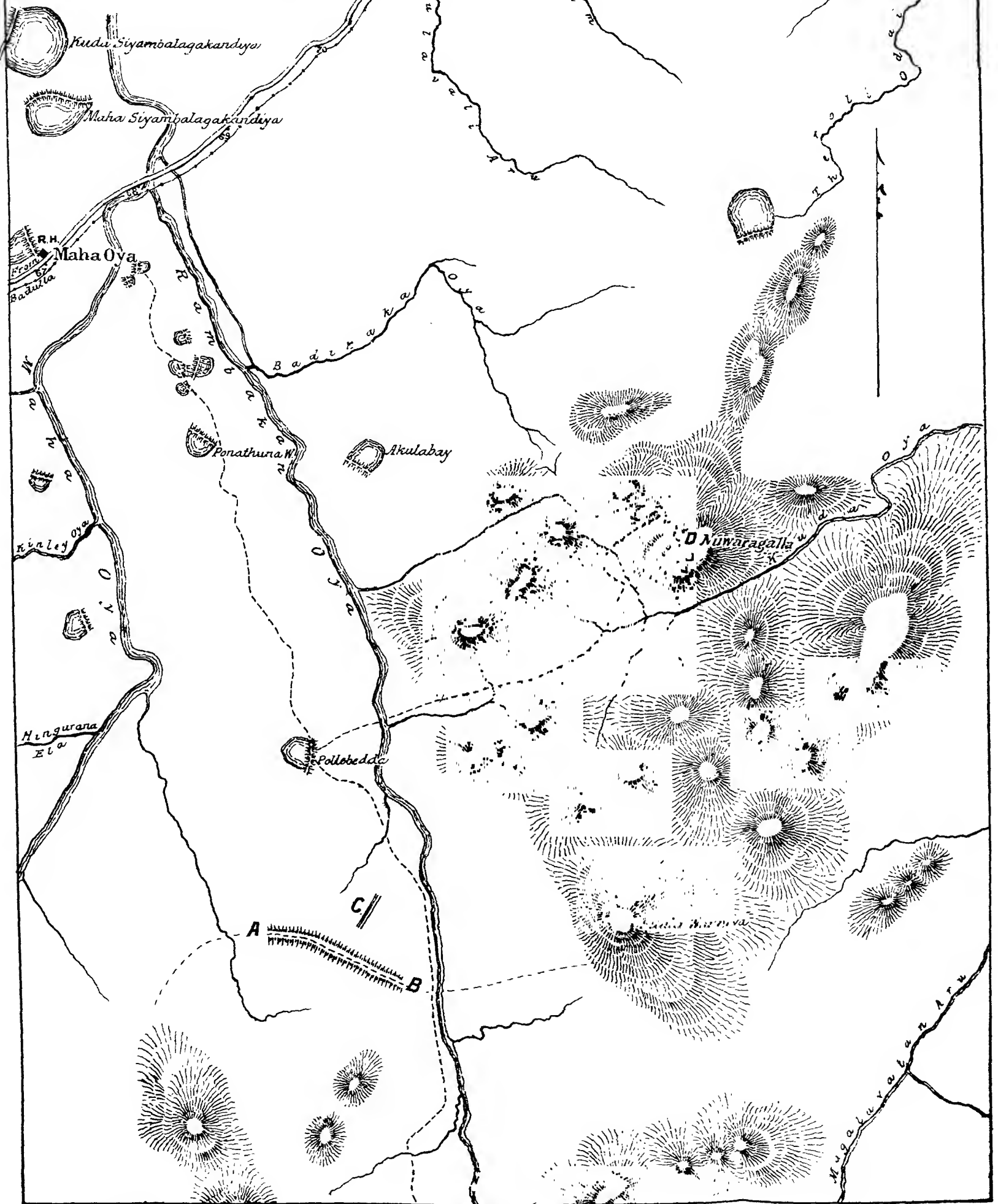
SHOWING POSITION OF

NUWARAGALLA

REFERENCE

- A..B Approximate position of Bund of Maha Watawala
Kandiya Tank
C..... Stone Channel
D..... Ruins at Nuwaragalla.

Scale, 1 Mile to an Inch



following this path for about two hours I noticed that there were occasional traces of large blocks of stone that at an early stage appeared to form into a sort of line, and upon a distinct fixed inclination.

Following this for about half a mile further, the ground began to show signs of being steeper and more rugged, while the above-mentioned stones correspondingly became more and more wall-like, till at last it was obvious that they supported the path I was following. This form of structure now began to become more and more elaborate, as the path followed up into a mass of rocky hills, terminating in a sort of dead end.

Here the road made a zig, and the walling correspondingly presented a deeper and broader surface as we climbed along the edge of a huge mass of rock. The path now becomes entirely built of large close-set masses of rough broken stone, but so perfectly have the stones been laid, both as regards gradient and position, that one could ride a horse along the path if the branches of overhanging trees were only removed.

After making a few more zig-zags that were rendered necessary by the bends or hollows of the rocky mass that the path climbs, it became quickly evident that we were well above the plain, that now lay far below.

It was also apparent that we were climbing a huge mass of precipitous rock, standing out like a vast column from among its smaller brethren. On one side the rock is vertical or nearly so, and as soon as the angle of the slope became very high the path zigged back towards the flatter surface, seizing as it went all points of advantage in formation or surface. At one particular spot I found what at first sight looked like sockets cut into the living rock for a doorway, but after later consideration I have reason to suppose that this doorway was for a huge block-house constructed for a special purpose to defend a weak point. Near these sockets are a number of steps cut into the rock to enable one to take a short cut up the rock without continuing along the more even line of constructed roadway.

Following the road, I found that we were getting on to a shoulder of bare rock, and here the path branched, one portion still rising, while the second or lower track passed through a slight gap and entered upon a ledge, below which the rock was, roughly speaking, vertical for approximately 800 feet. The ledge at this point is on one's left-hand side, and it quickly opened into a magnificent cave measuring 118 ft. by 25 ft., capable of easily accommodating at least 100 people. The mouth of the cave has a full and elaborately cut drip ledge, and also an inscription.*

The drip ledge in this case has, to me, the peculiarity of having a bending the purpose of which I presume is ornamental only. Several sockets are cut in the rock that forms the roof of the cave, and probably were for the purpose of forming a wall on one side to shut out the wind as well as rain and to form partitions. From the mouth of the cave one has a magnificent view of the mountain known as Kokka-gala, overlooking the little village of Kallodai, where the present cart road to Badulla crosses the old military (?) road that traversed the base of the Uva country, which reached Tissamaharama on the south and the Madura-oya on the east.

The object and purpose of this road is not, as far as I am aware, made known in any of our historical records, but it is impossible to avoid the conclusion, both from its general trend of direction and its size and stability of construction, that this was the highway from Tissamaharama to Polonnaruwa, or, in other words, to connect Ruhunu-rata with Pihiti or Raja-rata.

Such a road could be of commercial value, while equally it could be of strategic importance, and I am inclined to believe that perhaps the latter object was more in view while it was in course of construction, than the former. This road, it will be observed, followed the base of the Uva hills, and after

* [The defective copy sent with the Paper appears to read: *Devanapiya Maha Rajaha Gamini Tisahaputa Maha Tisa ayaha lene saga(sa)*.—B., *Honorary Secretary*.]

reaching Kokka-gala, its course lay more or less through open country. This had its dangers as well as objections. In an open country the road could be attacked from both sides, while in the case where it followed the sides of hills the hills alone afforded protection.

In considering Nuwara-gala as an outpost, it is important to bear this in mind, more especially as Kokka-gala was a high point overlooking the spot where the road debouched from the hills into the plains. This point too was weak from the south and east, as for forty miles eastward lay a Tamil country, flat, easily crossed, and backed by the sea, together with the large lagoon at Batticaloa.

Kokka-gala therefore offered one outpost, but taken in conjunction with Nuwara-gala as the last outlying natural fort to the east, its value became supplemented greatly, because from Nuwara-gala's lofty summit the movements of hostile parties or troops moving inland from Puliyantivu, or along the east coast, could be all the sooner seen and watched, and the observations signalled across the eight miles of valley between, to Kokka-gala, giving time for defenders to be placed on the road I have just mentioned at its place of extreme weakness. An enemy advancing from, say, Batticaloa could be watched for some days from Nuwara-gala, and their movements signalled to Kokka-gala, and at once the outlet of the road could be guarded, and in all probability the base of the supply—Tissa—speedily communicated with ; but so far this may be considered as pure theory in the absence of further support by internal evidence.

This I propose to describe more fully. Returning once more to our cave near the western summit of Nuwara-gala, we proceeded to follow the rising path. This now gets on to pretty nearly flat rock, and I found that in one place, in full command of a perfect view of Kokka-gala, there was a circular hole of about $7\frac{1}{2}$ inches in diameter drilled into the solid rock itself. I take it that this afforded a socket for a mast or signal post of some kind, possibly a beacon.

Passing by this, one finds that all the little undulations in the surface of the rock are dammed across, so as to catch water, till suddenly one alights upon a magnificent *pokuna* cut out of the living rock, measuring $77\frac{1}{2}$ ft. by $58\frac{1}{2}$ ft. by about 5 ft. in depth, full of sweet water.

The sides are perfectly cut, and the whole is a triumph of stone cutting, for the rock at this point is completely solid. Small deflecting bunds still exist, which directed the rain water into this perfect tank, till difference of level rendered them inoperative.

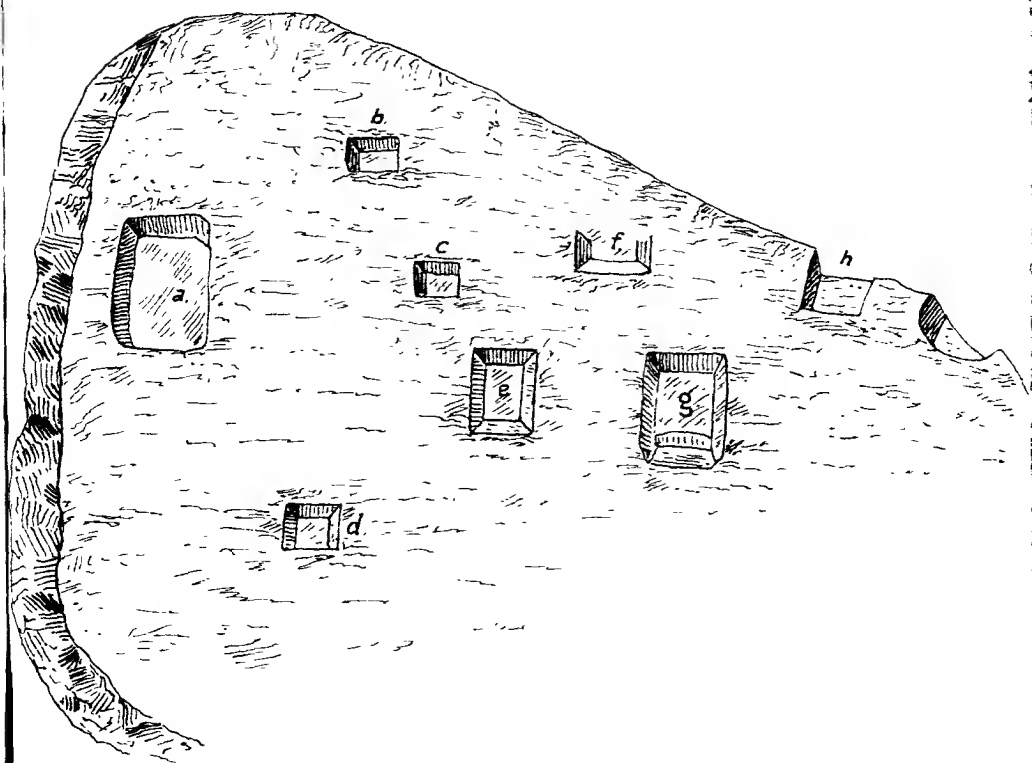
Leaving the tank or *pokuna* to the south-west, one finds the rock rising slightly into a densely wooded summit. Here one finds the remains of a huge fort-like building with stone walls. I was unable, as I was unprepared at the time, to make a detailed survey of this building, so as to gather its particulars of exact outline, but measured at hazard it appeared to be about 440 ft. long by 335 ft. wide and divided into an outer and inner series of outposts. At certain intervals I found passages through the walls with one that formed what I call a baffle doorway. The door frame was evidently a mixture of wood and stone, the sills indicating a baffle system, as the sketch will show (fig. 1). It will be seen that there is a double series of mortice holes, the larger facing the outer side of the building, and the smaller the inner.

It suggests itself to me that the position and relative sizes of the mullions would effectively afford resistance from the inside, while admitting both light and air, and also a hindering "baffle" from within, so that before a would-be invader could get a direct blow at the defender on the inside, the former would have to squeeze his way through a double phalanx of posts.

This building or fort that I speak of commands the very summit of the mountain, and is approximately 1,200 feet altitude. From it one can get an unbroken sweep of view from the Tamankaduwa hills on the north to Arugam bay in the south-east. To the east Batticaloa is clearly seen, and of

Nuwaragalla.

Baffle doorway.



Sizes

 $a = 14' \times 12' \times 4\frac{1}{2}' \text{ deep}$
 $b = 7' \times 6\frac{1}{2}' \times 3' \text{ "}$
 $c = 5' \times 5' \times 3' \text{ "}$
 $d = 6' \times 6\frac{1}{2}' \times 3' \text{ "}$
 $e = 12' \times 12' \times 5' \text{ "}$
 $f = 6' \times 6' \times 4\frac{1}{2}' \text{ (front open)}$
 $g = 12' \times 12' \times 1\frac{1}{2}' \text{ with a second step}$
 $h = 7' \times 6' \text{ deep}$
 $i = 11' \times 6' \text{ deep, broken away}$

course the sea line. Away to the southward stands Sitala Wanniya and a precipitous mass of vast rocks. Westward, again, one sees the Uva hills, and to the north-west the mountains that cluster around the eastern confines of Rangalla, in fact a perfect spot from which to view the eastern side of the country.

I found several more or less broken monoliths of dark stone, but nowhere did I see any trace of Buddhistic import, either as *pūja-gal*, *rupa*, or *karandu-gal*; the place looked grimly fortification-like, and severely strong in natural as well as artificial protection. The commanding position, the solidity of structure, the natural difficulties of approach, combined with the elaborate design for the conservatism of water supply, leave a particularly convincing impression on the mind that this could be no place of pious retreat only, coupled as it is with a striking absence of shrines. The water supply arrangements would serve probably 1,000 people, if not more. This could hardly be necessary for a handful of priests, especially when nature had planted a fort that could lend its aid to guard a great arterial path creeping along the outskirts of a probably unsubdued country, that at that time was possibly inhabited by the Yakkus, or Veddas, that the Sinhalese never really subdued.

My time and means did not admit of excavation. This must in time, when made, reveal the object and purpose of Nuwara-gala, that I venture to suppose was a military stronghold, to which the cave added a suitable *annexe* for devotional purposes.

I mentioned in the earlier part of this Paper that I observed what I believe to have been a guard-gate or block-house. It may be desirable to describe this structure. I found certain steps and slots cut in the living rock that would admit of beams being placed at a high angle just sufficient to cover the road, especially as they were probably jointed to horizontal beams placed at an angle with the sloping rock.

These beams again could be cross-braced and made to carry an enormous load, or roof of stone, that undisturbed would, by weight alone, serve to make a rigid enough covered way, and but by inserting either a wedge or a lever behind any of the transverse beams, the whole could be canted forward to a dangerous angle, the least addition to which would upset the whole and crash down upon the road far below, sweeping it away or blocking it in its fall. A trap, in fact.

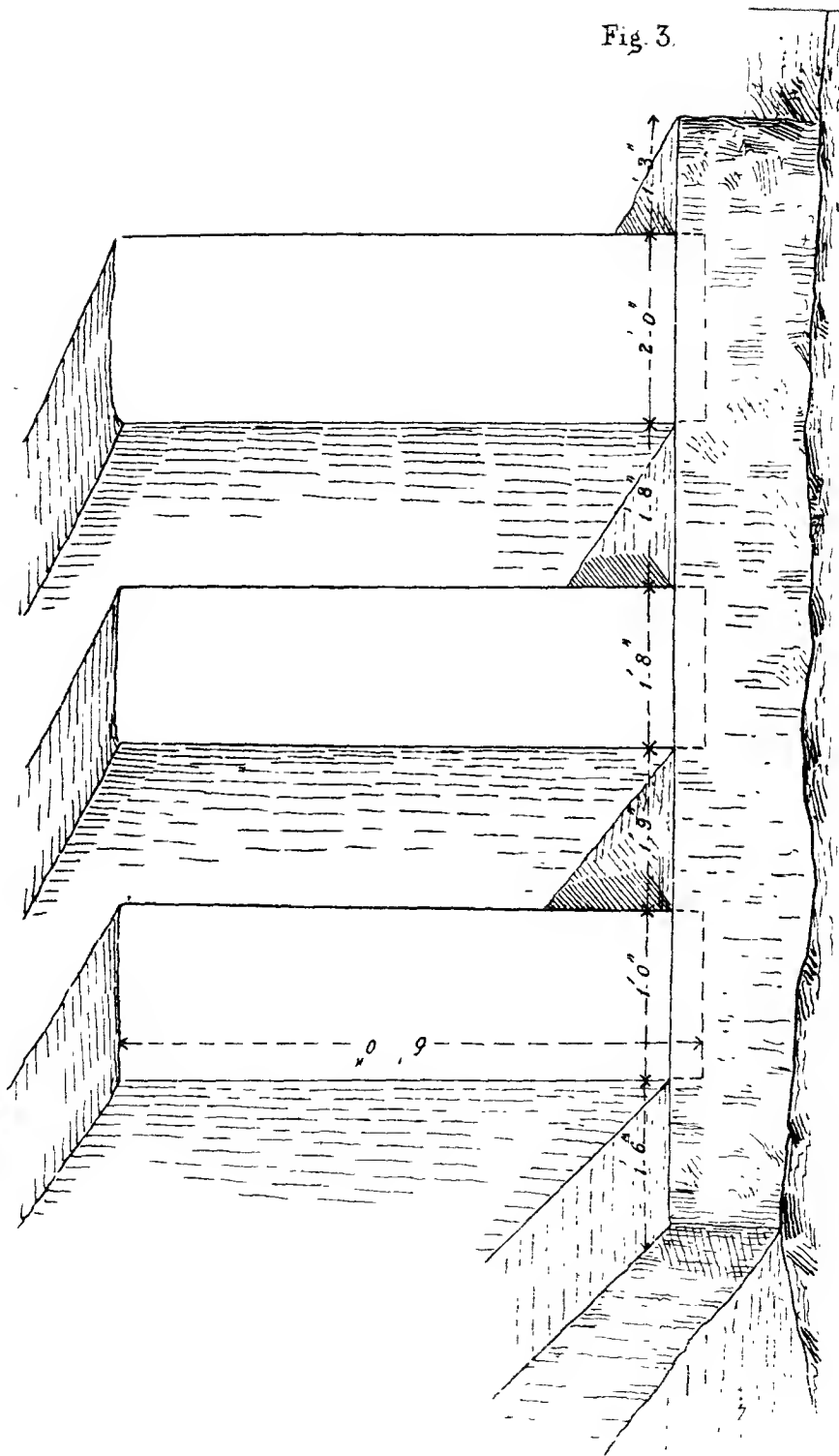
This would hinder all possible means of ready ascent from below, because at this point the road crosses a ravine, and is built up on rock ledges by a sort of connecting wall. Assuming this theory of construction of a block-house or barrier is correct, I submit that a further evidence in support of the idea that Nuwara-gala was a fortification is strengthened, though certain groovings in the rock require elucidation.

I mentioned that on my way to this fine point of rock I first came to a place called Pollebedda. I was informed that not far from it was a great stone work, and the remains of a vast tank. Accordingly on my return I proceeded to examine both.

The stone work appears to have been an incomplete channel or aqueduct constructed on a most magnificent scale. The work has been constructed out of enormous slabs of split or wedged stone, placed like a letter **W** laying along its back (see fig. 3).

The stones so laid are jointed together at their ends, besides being let into or morticed to the bedwork. Placed as they are, two parallel channels run dead true for 366 feet, and hardly a stone is out of place, notwithstanding the fact that the whole is within a mass of high forest. An idea of the magnitude of the work can be gained by considering the size of the individual pieces of stone that form the whole. For example, slabs 20 ft. by 6 ft. by 2 ft. 6 in. are abundant, while some are even longer, but taking these figures as typical, such a stone would contain 300 cubic feet, and would weigh probably between 23 to 25 tons !

Fig 3.



End view of Maha Watawala Kandiya Channel.

It is very significant that the measurements of the stones cut for this aqueduct and their other specifications as regards widths, distances apart, &c., all have a most remarkable analogy to our systems of measurements. For example, I found measurements to follow closely the order of a foot divided by 2 or 3; thus, I got 1 ft. 2 in., 1 ft. 4 in., 1 ft. 8 in., and 1 ft. 10 in., or by the second system of division I got 1 ft. 3 in., 6 in., 9 in., &c. In no case did I get a compound figure such as 1 ft. 7 $\frac{1}{4}$ in. I attach a table of slab measurements in illustration.

List of Stone Measurements.

Maha Wattawalla Kandiya Channel.

Length.	Width.	Thick- ness.	Length.	Width.	Thick- ness.
Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
11 6	by 6 0	by 2 6	17 0	by 6 0	by 2 8
16 6	by 6 0	by 1 3	17 0	by 6 0	by 2 8
11 0	by 6 0	by 2 9	23 0	by 6 0	by 2 6
10 0	by 6 0	by 2 9	10 3	by 6 0	by 2 8
13 6	by 6 0	by 2 9	8 2	by 6 0	by 2 6
15 0	by 6 0	by 2 8			

One row numbered twenty-nine stones, of which the smallest was 8 ft. 2 in. by 6 ft. by 6 ft. This peculiarity may have significant bearing on our standard of length, as I can hardly suppose that it could be only a mere coincidence.

Again, the length of the channel, even in its seemingly unfinished state, has a curious relation to the number of days in the year or leap year, but I do not venture to advance any theory on this point.

The tank that lay beyond the stone channel just referred to is known as Maha Wattawalla Kandiya. If it ever was completed, its object was to hold back the waters of the Rambukkan-oya, when that stream was in flood, and to distribute the same later.

The bund is beautifully pitched with stone, and at the breach (?) measures 107 ft. from the summit to "floor level" along the inclination of its surface. The top of the bund is in places over 50 ft. wide. The area along the water line I am unable to state without a contour survey, but probably it ran into some thousands of acres. I find no trace of a sluice.

The question now arises as to the date of the inscription over the cave at Nuwara-gala.

It is uncertain who the particular Devanampiya Tissa mentioned in this inscription was. If the 7th monarch, the inscription goes back to about 300 years before the Christian era. I am under a debt of obligation to Mudaliyar Simon de Silva, to whom I submitted a copy, for his translation. Upon the assumption that "Devanampiya Maha Rajaha Gamini Tisa" is identical with the sovereign in whose reign the revered bo-tree of Anurádhapura was introduced, and that "Maha Tisa" was his son,* it is fair to assume that the date of Nuwara-gala must be somewhere between 275 and 307 B.C., allowing, that is to say, that Maha Tissa had reached manhood at the time of the establishment of this stronghold.

The inference that the cave was a devotional *annexe* to the fort is based on the inscription which indicates that the *lena* (cave) was "common to the priesthood," but I think that the inference is permissible, taking situation and surroundings into consideration, and that the larger artificial building already referred to was the primary structure, to which the cave became subordinate in point of importance. This point, however, must be left to a later period, when expert archaeological explorers will be in full possession of detailed material to establish or demolish what I now respectfully beg to advance as a theory.

I may add that I think that it is exceedingly probable that Nuwara-gala may be found to be only one of a number of

*[The assumption is not borne out by the *Mahawansa*.—B., *Honorary Secretary*.]

natural forts for the protection of Ruhuna, or for the subjugation of the Yakkus, whose stronghold lay between the chain of hills that include “Westminster Abbey” and “Friar’s Hood” and the base of the Uva mountains—a country that to-day is said to be the haunt of the real Vedda.

It remains only for me to say that in submitting this Paper to the Society I do so with considerable hesitation, as I cannot cite any historical grounds for pitching upon Nuwara-gala as an outpost, and I must leave my conjectures to sink or swim upon the facts as already outlined and the proofs which further and expert investigation will undoubtedly evolve.

NOTE.

Mudaliyar Simon de Silva writes as follows :—

“Mahatisa, the son of Dewana-piya Maharaja Gamini.

“Devanpiya means ‘beloved of gods,’ and may be applied to any king. In this place the name of the king is Gamini (Gemunu), known also as a Dutu Gemunu. Descendants are sometimes called sons, but I would rather think Maha Tissa in this inscription is a relative of Dutugemunu.” [161 B.C.]

NOTE BY MR. H. STOREY.

REFERRING to Mr. Lewis’s excellent paper on Nuwara-gala, I see he does not refer to the fact that this curious hill was reported on by Mr. Halliley of the Survey Department in the Surveyor-General’s Administration Report of 1900.

As regards the stone “conduit” near the ruined tank near Pallebedda, I think it will be found to be merely an unfinished “sluice culvert,” and that the tank in question was never completed, hence the non-finding of any sluice. This is not the only case of the kind : I have myself seen unfinished tanks, half-built temples, and such-like. There is certainly in existence in the Eastern Province a perfect specimen of a similar case in which a tank bund is complete but for the sluice ; and this sluice chamber, culverts, &c., complete, lies “set up” some little distance away from its intended position in the bund ; thus showing that the ancient builders undoubtedly “fitted” their work complete before

removing it to its final bed. In the case mentioned by Mr. Lewis all that is missing seems to be the covering stones. The \sqcap shape is due to the fact that all outlet culverts of big tanks had double channels.

THE DISCUSSION.

14. The PRESIDENT, at the closing of the reading, said it would be of interest to have the subject discussed.

15. Mr. C. M. FERNANDO thought it would be a poor compliment to Mr. Lewis should there be no discussion on so interesting a Paper. Mr. Lewis seemed to hesitate between the two theories, as to whether Nuwara-gala was a hermit's abode or a military outpost. Mr. Fernando saw no reason why both these theories should not be correct. Judging from the fact referred to in the Paper that the Rock commanded the road to Polonnaruwa, it seems to have been used as a military outpost in the time of Parakrama the Great, who is celebrated for his military fortifications. He reigned 1,000 years subsequent to Dutthagamini.

16. Mr. E. W. PERERA said: A good deal of light may be thrown on the history and origin of Nuwara-gala by a reference to some of the lesser known chronicles of Ceylon, such as the *Thūpavaṇṣa* and *Dhātuvāṇṣa*. Both these chronicles contain valuable information about the settlement of the southern and south-eastern districts of the Island not contained in the *Mahāvāṇṣa*. The *Dhātuvāṇṣa*, probably founded on an old Pāli work, gives an account of the settlement of the district round Batticaloa and the names of the princes who founded cities and vihares in those parts. It deals with the period *circa* 200-100 B.C., and includes the reign of Kawantissa with references to the early youth of Dutugemunu. Pridham has given a brief *resumé* of this chronicle in his work on Ceylon. The *Mahāvāṇṣa* too proves that the Batticaloa District was one of the earliest and most flourishing Sinhalese settlements, with its capital of Digamadulla identified by Turnour as Digavewa. (*Mahāvāṇṣa*, chapters IX., XXIV., XXXII., XXXIII.) He was inclined to think that Nuwara-gala was an early stronghold belonging to the period of the wars of Elāla and Dutugemunu.

17. The PRESIDENT said that the discussion opened up some interesting points which might well be the occasion for further inquiry and investigation. They were all apt, he thought, to overlook and forget the great importance of the Eastern division of Ceylon in ancient times: how, for instance, the town of Bintenna is older even than Anurādhapura, while Ptolemy gave it as the capital of Taprobane beside the great river Mahaveli-ganga. It is possible, too, that in early days the Mahaveli-ganga, before it divided into two branches, forty miles from the sea, may have been navigable far inland. Governor Wilnot Horton had it examined and reported on for navigation, and it was considered that for 80 miles to Kalinga it could be made navigable. Valentyn states that so late as 1700 the kings of Kandy had ship and boat

building works at Bintenna. Now the old road from Kandy through Bintenna to Batticaloa must have passed close to Nuwara-gala and Maha-oya. Bintenna was a military station in 1817 and for some time after. He was much struck by the facts brought out by Mr. Lewis as to the commanding position of Nuwara-gala, 1,200 ft. high in the midst of a flat expanse, and commanding a view from Tamankaluwa to Arugam Bay and from the Rangala and Uva hills away to the far south. Here was the great Veddá and sporting country which, if taken to be 80 miles long by 40 wide, could occupy 3,200 square miles, or nearly one-eighth of the whole area of Ceylon. A more modern interest would now attach to some parts of the neighbourhood if the rich valley of the Mahaveliganga at different points became the scene of rubber cultivation, as had recently been hinted at. In any case they had to thank Mr. Lewis for a very interesting and suggestive Paper, and he proposed that a hearty vote of thanks be carried by acclamation.

18. Mr. FREUDENBERG proposed a vote of thanks to the Chair.

19. The coloured paintings and photographs attracted general interest, and were carefully inspected by those present, Mr. D. A. L. Perera, Head Draughtsman, Archæological Survey, being freely interviewed and complimented.

The album of "Archæological Finds" laid on the table also attracted attention.

COUNCIL MEETING.

Colombo Museum, May 30, 1907.

Present :

The Hon. Mr. John Ferguson, C.M.G., President, in the Chair.

Mr. R. G. Anthonisz.

The Hon. Mr. P. Arunachalam,
M.A., C.C.S.

Mr. C. M. Fernando, M.A., LL.M.

The Hon. Mr. S. C. Obeyesekere.

Mr. J. Harward, M.A., and Mr. G. A. Joseph.
Honorary Secretaries.*Business.*

1. Read and confirmed Minutes of Council Meeting held on February 8, 1907.

2. Resolved that the following candidates be elected Members of the Asiatic Society:—

- | | |
|---|--|
| (1) H. F. C. Fyers: recommended by | { (a) G. A. Joseph.
(b) J. Still. |
| (2) P. A. Goonaratna: recommended by | { (a) S. B. Kuruppu.
(b) A. W. Wijesinha. |
| (3) T. E. Goonaratna: recommended by | { (a) S. B. Kuruppu.
(b) A. W. Wijesinha. |
| (4) W. T. D. C. Wagiswara: recommended by | { (a) H. Sumangala.
(b) W. A. de Silva. |
| (5) Rev. R. P. Butterfield: recommended by | { (a) J. Ferguson.
(b) G. A. Joseph. |
| (6) S. G. Koch: recommended by | { (a) J. W. Vanderstraaten.
(b) G. A. Joseph. |
| (7) T. Harward: recommended by | { (a) J. Harward.
(b) G. A. Joseph. |
| (8) L. S. Woolf, B.A., C.C.S.: recommended by | { (a) G. D. Templer.
(b) G. A. Joseph. |
| (9) M. A. C. Mohamed: recommended by | { (a) S. G. Lee, M.A.
(b) G. A. Joseph. |
| (10) J. Hornell: recommended by | { (a) A. Willey
(b) G. A. Joseph. |
| (11) A. H. Fernando: recommended by | { (a) F. H. Modder.
(b) G. A. Joseph. |
| (12) A. E. Roberts: recommended by | { (a) F. H. Modder.
(b) G. A. Joseph. |

3. Laid on table Circular No. 248 of September 1, 1906, containing the opinions of the Hon. Mr. P. Arunachalam and Simon de Silva, Mudaliyar, on the translation of a Tamil Paper entitled "The Origin of the Tamil Vellálas," by Mr. V. J. Tamby Pillai.

Resolved,—That the translation be accepted on the condition that Mr. Tamby Pillai do obtain the permission of the original writer and the Editor of "Shen Tamil's" to allow the translation to appear in the Society's Journal.

4. Laid on the table Circular No. 18 of February 5 last containing the opinions of Messrs. C. M. Fernando and P. E. Pieris on a Paper entitled "Some early Copper Coins," by Mr. J. Still.

Resolved,—That the Paper be accepted and be read at a Meeting and published in the Society's Journal.

5. Laid on the table Circular No. 25 of February 11, 1907, containing the opinions of Messrs. J. Harward and J. P. Lewis on the Paper entitled "Portuguese Ceilão," by Mr. P. E. Pieris, C.C.S.

Resolved,—That in view of the suggestions of the gentlemen to whom the Paper was referred Mr. Pieris be asked to revise the Paper in the direction indicated, quote his authorities, and modernize proper names.

6. Laid on the table Circular No. 40 of February last containing the opinions of Messrs. R. G. Anthonisz and F. H. de Vos on a Paper entitled "Joan Gideon Loten, F.R.S., the Naturalist Governor of Ceylon (1752-7), and Ceylonese Artist de Bevere," by Mr. Donald Ferguson.

Resolved,—That the Paper be accepted, read, and printed in the Society's Journal, together with Messrs. R. G. Anthonisz's and F. H. de Vos's Memoranda.

7. Considered the desirability of sending the Society's Journal to L'Ecole Française D'Extreme Orient, Hanoi, who have sent their Journal continuously from 1901.

Resolved,—That L'Ecole Française D'Extreme Orient, Hanoi, be put on the exchange list, and do receive the Journal from this year.

8. Laid on the table English translation of the Prize Essay on "Kandyan Medicine," by Mr. T. B. Bakinigahawela.

Resolved,—That the opinion of Dr. J. Attygalle (senior) be solicited in regard to the value of the Paper; and that with this opinion the question of publishing the Paper in the Society's Journal be left to the discretion of Mr. H. C. P. Bell, Editing Secretary.

9. Laid on the table a Paper entitled "The Age of Śrī Parākrama Báhu VI.," by Mr. E. W. Perera, Advocate.

Resolved,—That the Paper be referred to the Hon. Mr. P. Arunachalam and Mr. C. M. Fernando for their opinions.

10. Read a letter from Dr. A. Willey, F.R.S., resigning the Membership of the Council and of the Vice-Presidency of the Society.

Resolved,—That this Council do convey to Dr. Willey the expression of their hope that he will allow his name to remain as a Vice-President of the Society.

11. Read a letter from the American Oriental Society asking for past Numbers of the Journal.

Resolved,—That the Society be sent any number of the Journal asked for of which there are more than six copies in stock.

12. The Hon. Mr. P. Arunachalam brought up the question of the compilation of a proper Gazetteer of Ceylon.

Resolved,—That the Hon. Mr. Arunachalam, Messrs. C. M. Fernando, J. Harward, and P. E. Pieris be asked to consider the matter and inform the Council.

13. The Chairman raised the question of asking the Government to increase the subhead of the Archæological Survey on account of "Restoration and Preservation of Ancient Structures" from Rs. 5,000 to Rs. 20,000 in order that the work may be pushed on during Mr. H. C. P. Bell's tenure of office as Archæological Commissioner.

Resolved,—That it be left to the President, the Hon. Mr. J. Ferguson, to approach His Excellency the Governor on the subject.

14. The Chairman pointed out the necessity for taking immediate steps to obtain a Scientific Report on the Veddās, and the desirability of securing the services of Mr. Brown of Cambridge University, an expert now engaged in Anthropological Work in the Andamans.

Resolved,—That the Hon. Mr. Ferguson do consult Dr. Willey and then approach His Excellency the Governor with the request that provision may be made for the services of Mr. Brown.

GENERAL MEETING.

Colombo Museum. May 30. 1907.

[The Proceedings of this Meeting, and the Paper which was read at it ("The Discovery of Ceylon by the Portuguese in 1506"), with the Discussion which followed, will be issued as Number 59, Vol. XIX., 1907, of the Journal.]

COUNCIL MEETING.

Colombo Museum, August 27, 1907.

Present :

The Hon. Mr. J. Ferguson, C.M.G., President, in the Chair.

The Hon. Mr. J. P. Lewis, M.A., C.C.S., Vice-President.

Mr. R. G. Anthonisz.

Mr. S. de Silva, Gate Mudali-
yar.Mr. C. Drieberg, B.A.,
F.H.A.S.

Hon. Mr. S. C. Obeyesekere.

Mr. G. A. Joseph, Honorary Secretary.

Business.

1. Read and confirmed Minutes of Council Meeting held on 30th May last.

2. The Council was informed that a sum of Rs. 3,000 had been promised by Government, and would be included in the Supply bill, under the heading "Colombo Museum, for Veddâ Research." Action had been taken by the President and Dr. Willey to secure a capable man for the work.

3. The Honorary Secretary notified that the following had been elected Members of the Society:—

- | | | |
|-------------------------------|---|---------------------|
| (1) J. D. S. Rajepakse, J.P., | { | (a) G. A. Joseph. |
| Mudaliyar: recommended by | | (b) J. Parsons. |
| (2) D. H. O. K. Jayawardana, | { | (a) G. A. Joseph. |
| Mudaliyar: recommended by | | (b) J. Parsons. |
| (3) O. W. Henman, Irrigation | { | (a) J. Still. |
| Engineer: recommended by | | (b) G. A. Joseph. |
| (4) T. Southwell, F.A.C.S., | { | (a) G. A. Joseph. |
| Scientist: recommended by | | (b) J. Parsons. |
| (5) T. A. J. Noorbhai, Mer- | { | (a) G. A. Joseph. |
| chant: recommended by | | (b) J. Parsons. |
| (6) C. J. A. Marshall, J.P., | { | (a) J. Parsons. |
| Proctor, S.C.: recommended | | (b) G. A. Joseph. |
| by | | |
| (7) J. A. Daniel, Assistant | { | (a) G. A. Joseph. |
| Mineral Surveyor: recom- | | (b) J. Parsons. |
| ended by | | |
| (8) L. B. Fernando, Proctor, | { | (a) C. M. Fernando. |
| S. C.: recommended by | | (b) G. A. Joseph. |

- (9) M. F. Khan, Merchant : { (a) P. de Abrew.
recommended by { (b) P. D. Khan.
- (10) W. F. Skene : recommend- { (a) J. Still.
ed by { (b) G. A. Joseph.
- (11) T. B. Madawala, President, { (a) F. Modder.
V. T. : recommended by { (b) G. A. Joseph.
- (12) J. W. A. Ilangakoon, B.A., { (a) J. A. Daniel.
L.L.B., Advocate : recom- { (b) G. A. Joseph.
mended by
- (13) E. C. de Fonseka, Proctor : { (a) C. M. Fernando.
recommended by { (b) E. W. Perera.
- (14) Francis de Zoysa, Advo- { (a) C. M. Fernando.
cate : recommended by { (b) E. W. Perera.
- (15) G. S. Schneider, Advocate : { (a) C. M. Fernando.
recommended by { (b) E. W. Perera.
- (16) F. A. Hayley, Advocate : { (a) C. M. Fernando
recommended by { (b) E. W. Perera.
- (17) L. A. Mendis : recommend- { (a) J. Ferguson.
ed by { (b) G. A. Joseph.
- (18) D. R. A. P. Siriwardana, { (a) C. M. Fernando.
Advocate : recommended by { (b) E. W. Perera.
- (19) H. J. M. Wickramaratna, { (a) G. A. Joseph.
Proctor : recommended by { (b) C. M. Fernando.
- (20) F. E. Vaid, Secretary, {
Oriental Government Secu- { (a) G. A. Joseph.
rity Life Assurance Co. Ltd. : { (b) A. Willey.
recommended by

4. Resolved that the following candidates be elected Mem-
bers :—

- (1) Miss M. Rollo : recom- { (a) J. Still.
mended by { (b) D. F. Noyes.
- (2) Dr. W. P. Rodrigo, M.R.C.S., { (a) G. A. Joseph.
L.R.C.P., D.P.H., &c. : re- { (b) C. M. Fernando.
commended by
- (3) O. M. Obeyesekera, Medical {
Practitioner : recommended { (a) A. M. Gunasekera.
by { (b) W. F. Gunawardhana.

5. Laid on the table Mr. P. E. Pieris's Paper on Portuguese Ceilão, &c., revised by him at the suggestion of the Council.

Resolved,—That the Paper be now accepted, read at a Meeting, and published in the Society's Journal.

6. Laid on the table a Paper entitled "Letters from Rájá Sinha II. to the Dutch," by Mr. Donald Ferguson.

Resolved,—That the Paper be referred to the Hon. Mr. J. P. Lewis and Mr. R. G. Anthonisz for their opinions.

7. Laid on the table a Paper entitled "The Dutch Embassy to Kandy in 1731-1732," &c., by Mr. P. E. Pieris, C.C.S.

Resolved,—That the Paper be referred to the Hon. Mr. J. P. Lewis and Messrs. H. C. P. Bell for their opinions.

8. It was decided to invite His Excellency the Governor Sir Henry McCallum to become Patron of the Society, and to ask Sir Joseph Hutchinson, Chief Justice, and the Hon. Mr. Hugh Clifford, Colonial Secretary, to join the Society and become Vice-Patrons.

9. Resolved,—That a General Meeting be held shortly, and followed by another Meeting in October, when His Excellency the Governor as Patron would be asked to preside, and the Paper by Mr. Donald Ferguson on "Joan (Gideon Loten, F.R.S., the Naturalist Governor of Ceylon (1752-57), and Ceylonese Artist de Bevere" would be read.

GENERAL MEETING.

Colombo Museum, September 30, 1907.

Present :

The Hon. Mr. John Ferguson, C.M.G., President, in the Chair.

Mr. C. M. Fernando, M.A., LL.M.

Dr. A. Nell, M.R.C.S.

Mr. J. Hornell.

Mr. M. Supramaniam.

Mr. R. John.

Mr. A. H. Thomas.

Mr. G. A. Joseph, Honorary Secretary.

Visitors : One lady and six gentlemen.

Business.

1. Read and confirmed Minutes of last General Meeting held on May 30, 1907.

2. Laid on the table a list of thirty new Members elected since the last General Meeting.

3. The CHAIRMAN said that before entering on the business before the Meeting he might mention that it was now certain that a scientific authority was coming out and would be here by December next to investigate the sociology and everything connected with the Vedḍás. He was also glad to learn that there would be

a moderate vote in the next Supply Bill in aid of the expenses incurred. The name of the gentleman was Dr. C. G. Seligmann. Dr. Haddon, in a letter to him, said: "I think there is now not the slightest doubt that Dr. C. G. Seligmann will be available this winter. As I said before, he is thoroughly competent, having been trained by Dr. Rivers and myself, and he has been twice to New Guinea and once to Sarawak. Fortunately, though the Drs. Sarasin have done a good deal, physical, &c., and recently archæologically, there is still much to be done, especially in sociology, religion, magic, psychology, &c., and all this Dr. Seligmann can do extremely well." They as a Society would do all they could to welcome Dr. Seligmann in Ceylon.

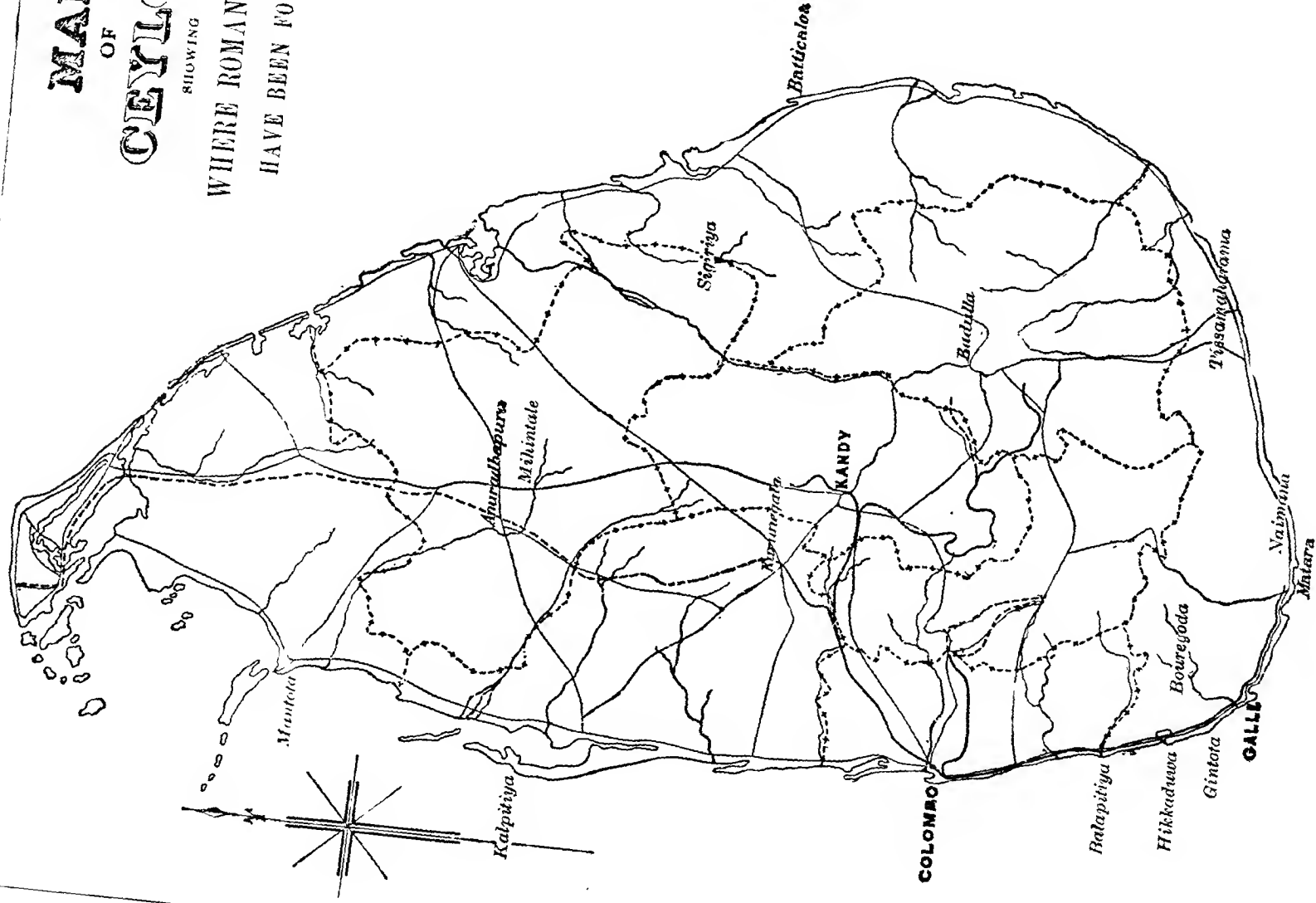
Then they were interested to note that their Vice-President. Mr. J. P. Lewis, was continuing his papers in the "Architectural Review." In its August number appeared the concluding part of his paper on Dutch Architecture, certain illustrations from which were placed on the table for inspection.

Further, he had received from Mr. John Pole of Maskeliya an interesting brief Paper, which he had sent at his request, with a collection of stone flakes and other remains connected with the Veddás. All this collection had been made by him after the Drs. Sarasin had left, as Mr. Pole had presented to them his previous collections. They felt it would not be fair to Mr. Pole to bring up his Paper that evening as no announcement had been made, and friends specially interested in the Stone Age would like to be present. At the next Meeting they would have, too, a Paper by Mr. Donald Ferguson on the Dutch naturalist Governor. which with Mr. Pole's paper might go well together.

The Chairman then invited Mr. C. M. Fernando to read Mr. J. Still's papers. Mr. Fernando, who had himself made a study of numismatics, had brought to the Meeting his own collection of old coins.

4. Mr. C. M. FERNANDO read the following Papers:—

MAP
OF
CEYLON
SHOWING
WHERE ROMAN COINS
HAVE BEEN FOUND



ROMAN COINS FOUND IN CEYLON.By JOHN STILL.

ALL information I have been able to gather is embodied in this Paper. At the same time no claim is made to have exhausted the subject. Doubtless some references have been overlooked, and probably many coins remain unidentified in the hands of collectors. It is to be hoped that these gaps in the record will be filled in by those who, possessing information, read this Paper and notice omissions.

I have much pleasure in gratefully acknowledging help from the following gentlemen, without whose courtesy this list would have been far shorter than it is:—Messrs. H. C. P. Bell, A. E. Buültjens, H. W. Codrington, C. M. Fernando, J. P. Lewis, P. E. Pieris, C. D. Vigers, R. Wickremesinghe, and the Colombo Museum authorities. Most particularly Mr. Bell has opened to me many sources of information.

This Paper has for convenience been divided into three portions, viz. :—

I.—General Remarks and Conclusions.

II.—Description of the Finds.

III.—Detailed List of the Coins.

I.—GENERAL REMARKS AND CONCLUSIONS.

The Roman coins found in Ceylon, although of but little value and numbering few that are rare in Europe, occupy a position of peculiar interest in the numismatic history of the Island.

To show clearly how important they are, it is necessary, for the benefit of those who have not made a special study of Ceylon numismatics, to very shortly describe the large variety

of coins that make Ceylon so interesting a field for the collector. These may be roughly divided into three classes :—

- (i.) Native, unmarked by letters or by any form of device by which the date can be at all accurately ascertained.
- (ii.) Native, bearing the name of the king who struck them.
- (iii.) Foreign.

(i.) includes eldlings or punch-marked coins, which are the earliest form of coins known in India and Ceylon, and which continued in use for a very long period of time.

Up to what date these eldlings remained in circulation is at present uncertain ; but information recently available indicates a considerably later period than had been believed likely. Possibly they may have survived even until the 11th or 12th century A.D. Besides the eldlings, there are various copper coins which circulated in very early times, but which cannot be definitely ascribed to any particular king or even dynasty.

Larins too, though of a much later period than these others, must also be included in this class (i.), for they bear no inscriptions which fix their date, and although of foreign type were undoubtedly in many cases struck locally.

(ii.) includes a small class of coins, found in gold, silver, and bronze, which were struck by the kings of Ceylon in the Polonnaruwan period (12th and 13th centuries A.D.). They are all similar in type, and each bears the name of a king or queen.

(iii.) is by far the largest class, and includes coins of various Indian dynasties, of the Chinese, Portuguese, Dutch, Venetians, English, &c. But of all these, the earliest that bears writing is the Raja Raja copper coin of the 11th century A.D., save only the Roman coins which form the subject of this Paper, and which were struck in the 3rd, 4th, and 5th centuries A.D., chiefly in the 4th.

So from the beginning of Sinhalese history up to the 11th century A.D. the only coins found in the Island which can be accurately dated are the Roman issues. When it is added they have been found in considerable quantities and in a variety of places widely apart, their archæological value will be evident.

At the beginning of this Paper is given a map marking all places at which I have been able to obtain any record of Roman coins. It is noticeable that nearly all harbours and mouths of rivers on the west coast are marked, showing undoubtedly the importance of the trade with India. It is curious that Jaffna and Trincomalee should remain unrepresented. Another marked exception is Polonnaruwa, which is thus shown to have been of comparatively modern foundation. or the extensive excavations would surely have produced one specimen.

Further on a list of Roman coins found in Ceylon (so far as I have been able to obtain information) is given. But before proceeding to consider them in detail, it will be interesting to compare our finds with those made in the far greater field of India. Fortunately this is rendered easy by Mr. Robert Sewell's most interesting Paper, "Roman Coins found in India,"* in which all available information has been tabulated. Mr. Sewell divides the coins into five periods :—

- (a) Time of the Consulate.
- (b) Augustus to 68 A.D.
- (c) 68 A.D. to 217 A.D.
- (d) 217 A.D. to 364 A.D.
- (e) 364 A.D. to the end of the Empire.

Of period (a), Mr. Sewell notes 15 specimens: of period (b), some thousands, "the product of 55 separate discoveries"; of period (c), only a few score; of period (d), about a dozen; of period (e), large numbers, mostly in the south.

The Ceylon specimens belong to (d) and (e), with only some half dozen exceptions.

Mr. Sewell goes fully into the reasons for this fluctuation in trade; and as the same reasoning will in large degree apply to Ceylon, I quote a paragraph explanatory of the revival of trade in the fifth and last period :—

"The Eastern Empire at Constantinople, first occupied as a seat of Government by Constantine the Great in 330 A.D., and established as the capital of an Empire in 376 A.D., lasted much longer and enjoyed far greater success. Almost in

* Journal, Royal Asiatic Society, October, 1904.

contact with Asia, and its upper classes having leisure as well as wealth, it was natural for the Asiatic trade to improve."

It may appear curious that the only remaining indication of Roman trade should consist of small comparatively valueless copper coins, and of a *very* small number of those of more precious metal. But apart from the possibility that the bulk of the trade may have been carried on by means of *barter*, owing possibly to the unaccustomedness of the Sinhalese to see coined money in large quantities, it does not seem to me, on consideration, to be unlikely that the gold and silver currency has practically completely disappeared.

When the great rarity of *genuine** specimens of the Sinhalese gold and silver currency of the 12th and 13th centuries A.D. is remembered, it is not difficult to conceive that their more remote Roman predecessors may have been nearly all melted down, especially when it is borne in mind that the centuries which separate the issues one from another, *i.e.*, the 6th to 11th, were among the most stormy and troubled in the history of Ceylon—a time when the language and the written characters were changing, when the country was continually in a state of civil war and was frequently over-run by invaders, and when no man's life or property was safe or secure. This period was the Sinhalese dark ages.

Is it therefore to be wondered at if money, no longer current, † was as rapidly as possible converted into ornaments which might be worn upon the person, or melted down and dedicated to the propitiation of the gods who so stonily hid their faces from troubled Lanka ?

Another point to be considered with regard to these small copper coins is that raised by Captain Tufnell in his "Hints to Coin Collectors in Southern India." Captain Tufnell describes coins found in the Madura District, which are very similar to

* How rare genuine specimens are I am inclined to think very few people thoroughly realize. Gold "Lankesvaras" and "Vijaya Bahus" are turned out wholesale in Kandy now, and are so skilfully done that most of them are duly absorbed into collections. The improved manufacture of late is marked.

† This would not apply to the silver *eldlings* so strongly, as I believe they were *current* through this whole period.

those found in Ceylon, and which, for several reasons, he decides, were minted in India to meet local requirements.

After examining over two thousand copper Roman coins found in Ceylon, I am convinced that our coins are true Roman, and not coined either in Ceylon or India, with the exception of the Naimana find and of a very few other specimens. I give a few extracts from Captain Tufnell's book, and at the same time attempt to show clearly where the Ceylon finds differ. But throughout this comparison it must be understood that the Naimana find is excepted, and will be dealt with separately.

Of course I do not for a moment presume to criticise Capt. Tufnell's conclusions regarding the coins he found in India ; in fact, when describing the Naimana find, I hope to strengthen them ; but I wish to show that the great majority of the Ceylon specimens, although in some respects similar, yet differ fundamentally from those described in " Hints to Coin Collectors " :—

Capt. Tufnell's Coins.

(a) " For the following reasons I incline to the opinion that they were struck on the spot, and were not importations from Rome. In the first place, during a recent visit to Madura and the surrounding villages in quest of specimens, I came across no less than seven of these coins, Roman beyond any doubt, but of a type which appears to me to be totally distinct from that found in Europe."

(β) " Moreover, they are not the kind of money that one would expect the rich Roman merchant to bring."

(γ) " That they are found almost exclusively in one locality."

Ceylon-found Coins.

(a) Among many hundreds of specimens examined, I have found that 99 per cent. of coins that are sufficiently legible to be made out clearly either on obverse or reverse are of one or other of the types described in standard books on Roman coins.

(β) As I have already attempted to show, it is by no means impossible that a large number of gold and silver coins may have been current and have afterwards disappeared.

(γ) A glance at my map will show that Roman coins have been found over half Ceylon.

(δ) "On the obverse of all that I have met with appears an Emperor's head, but so worn that with one or two exceptions the features are well-nigh obliterated. In one or two specimens a faint trace of an inscription appears running round the obverse, but hitherto I have not come across a single specimen in which more than one or two letters are distinguishable."

(δ) My detailed list of coins at the end of this Paper shows more than sixty varieties identified and described. Especially noticeable is the identification in their *exerga* of the mint abbreviations of Carthage, Treveris, Antioch, Narbonensis, Constantinople, Rome, and other cities which had the privilege of striking coins.

These extracts are, I think, sufficient to show that our coins are not of the same class as those found by Captain Tufnell.

Now to deal with the exceptions, which seem to be similar to what Capt. Tufnell describes. At Naimana, near Matara, in the Southern Province, a find was made of some 350 coins, hitherto supposed to be Roman. But I am glad to say they are something a great deal more interesting than another find of 4th century A.D., third brass coins, which would at most only add one or two varieties to those already known in the Island. They are in fact an issue struck in imitation of the Roman coins of the 4th and 5th centuries A.D. Whether they were struck in India or in Ceylon there is not much evidence to show. They may be the same as the coins Capt. Tufnell found near Madura; but, whereas his specimens were all quite illegible, many of these are well enough preserved to admit of detailed description. But before describing them I must explain the sources of my information:—

- (i.) The Colombo Museum possesses seventeen of these Naimana coins.
- (ii.) Mr. Buültjens sent for my inspection ten specimens. Unfortunately the rest of his collection was carried off by burglars.
- (iii.) Mr. H. C. P. Bell possesses eighty-eight coins of precisely the same type as the foregoing, which he bought in the Pettah of Colombo.
- (iv.) Two coins of this type were dug up at Anuradhapura during the excavation of the monastery known as Toluvila.

In size and in general appearance the imitation and the real Roman money tally pretty well ; but a closer examination of the workmanship and design at once makes evident the deception. Of the ninety-four specimens which are sufficiently well preserved to be determined, no less than twenty-six bear heads facing left, the remaining sixty-eight face right. This is $27\frac{1}{2}$ per cent. of heads to *left*, whereas the ordinary Roman coins with hardly an exception face *right*. This discrepancy is explainable by the fact that, although the Sinhalese coiners were used to making dies for coining money, yet their own designs presented few, if any, designs that would suffer from reversal, whereas in the picture of a head it is very noticeable.

Most of the faces are distinguished by rather full lips, characteristic more of the Asiatic than of the European type of feature ; and the noses are not Roman but straight, owing, I think, to lack of skill on the part of the artist. The diadem has been retained ; but in several specimens the two ends of the fillet, which show in the Roman coins behind the head, have been exaggerated and multiplied into something resembling locks of hair. But, though of crude execution, these coins retain sufficient resemblance to the Roman coins to render them infinitely better representations of the human form divine than the figures on the later coins of Parakrama Bahu and his successors.

Evidently the craftsmen who manufactured the coins had no knowledge of the Roman writing, for the inscription round the head is replaced by various makeshifts, which serve to fill the coin, and which indeed at a little distance or in worn specimens give quite the effect of letters. In some specimens the writing is represented by a series of small stars, in others by rows of dots or of the figure 1, and in yet another by a serrated line like a piece of string knotted at short intervals. Four or five of the heads bear helmets, and in one or more this has degenerated into a sort of cap, or even a turban.

Now to turn to the reverses. Sixty of the 117 coins are sufficiently clear to enable one to describe them in some detail.

These I have classified as follows :—

- (i.) Imitation of the type common to Constantine I. and his successors, representing two soldiers on either side guarding a standard. The varieties of this run through a regular series, beginning with a very fair imitation of the Roman design and ending with a mere diagram of lines which bears no manner of likeness to its original. Round the edge is seen an imitation of an inscription in the same manner as on the obverse. Of this type there are thirty-three specimens.
- (ii.) A cross, after the fashion found on the coins of many of the Christian Emperors, save that a plain circle is substituted for the surrounding wreath. Of this type there are five.
- (iii.) A standing figure, which I take to be a pseudo-Victory. Of this type there is only one.
- (iv.) A design of two, three, or four concentric circles. Of this type there are six.
- (v.) A design after the fashion of a wheel. This in its simplest form is four intersecting lines forming an eight-armed cross. The next development was to substitute a small circle with radiating arms, which vary in number up to nearly thirty. In most cases this design is enclosed in a circle, and sometimes is surrounded by an imitation legend.

No exergum or mint mark is visible on any of the coins. Owing to their bad state of preservation, no photograph can adequately represent them ; but it is hoped that the illustration given will be sufficient to indicate the points described.

All of the coins, both Roman and imitation, have been thoroughly well used, and are so worn that even where corrosion has not pitted the surface only a small percentage can be accurately read and identified. But designs are less easily obliterated than are inscriptions, and the majority of the coins can safely be fixed to within a limited period. Beyond that, however accuracy can only be obtained by actually reading

the inscription, for though the heads, when well preserved, can be recognized as portraits, one *head diademed right* is very like another, while in the majority of cases the reverse is of a pattern common to the coins of several Emperors.

Finally, before proceeding in Part II. to detailed description, I give a list of the Emperors and Casars whose coins have been found in Ceylon :—

- | | |
|---|--|
| 1. Claudius I. or II., 49–54
A.D. or 268–270 A.D.* | 14. Crispus, 317–326 A.D. |
| 2. Nero, 54–68 A.D. | 15. Constantinus II., 335–340
A.D. |
| 3. Vespasianus, 70–79 A.D. | 16. Constans, 337–350 A.D. |
| 4. Trajanus, 98–117 A.D. | 17. Constantius II., 337–361
A.D. |
| 5. Antoninus, 138–161 A.D. | 18. Constantius Gallus, 351–
354 A.D. |
| 6. Marcus Aurelius, 161–180
A.D. | 19. Julianus II., 358–362 A.D. |
| 7. Geta, 209–212 A.D. | 20. Helena, 360 A.D. |
| 8. Aurelianus, 270–275 A.D. | 21. Valens, 364–378 A.D. |
| 9. Maximianus II., 292–311
A.D. | 22. Gratianus, 375–383 A.D. |
| 10. Maximinus II., 308–313
A.D. | 23. Valentinianus II., 375–
392 A.D. |
| 11. Licinius I., 307–324 A.D. | 24. Theodosius I., 379–395 A.D. |
| 12. Licinius II., 317–323 A.D. | 25. Victor, 383–388 A.D. |
| 13. Constantinus I., 306–337
A.D. | 26. Arcadius, 395–408 A.D. |
| | 27. Honorius, 394–423 A.D. |

II.—DESCRIPTION OF THE FINDS.

Mantota.

I am indebted to Mr. P. E. Pieris for this passage from De Couto :—

“For in the year of our Lord 1574 or 1575, when Joao de Mello de Sampaio was Captain of Manar, while some buildings on the opposite shore, called the district of Matota—where to-day great ruins of Roman masonry may still be seen—were being pulled down. the workmen who were digging up a rock

* This is a most doubtful identification. See under Mannar.

came upon a portion of the foundation. This was removed. There were also found two copper coins, one entirely worn out and a gold coin worn out on one side, while on the other was shown a man's head from the shoulders upwards. Round it could be traced fragments of letters, obliterated in part, but the first stood out quite clearly as a *C*, though the succeeding ones could not be deciphered. The lettering ran quite round, and among them could be traced *R*, *M*, *N*.

"We are of opinion that the letter *C* is the initial of the name *Claudius*, the following letters which were worn out reading *Imperator*, while *R*, *M*, *N* were clearly meant for *Romanorum*."

I am of opinion that De Couto was wrong in ascribing the coin to Claudius on such very slender grounds.

Claudius I. (41-54 A.D.) is styled on his coins "Ti Claudius Cæsar Aug. P. M. Tr. P. Imp." Claudius II. (268-270 A.D.) is styled variously "Imp. Claudius Cæsar Aug.," "Imp. C. M. Avi. Claudius Aug.," and "Diuus Claudius Gothicus." Not one of these would suit.

Some of the coins of Constantinus I. would suit the description. Add to which we have found several of Constantine's brass coins, and none belonging to Claudius.

In the Journal of the Ceylon Branch of the Royal Asiatic Society, vol. I. (3), 73, occurs the following reference to Roman coins :—

"Sir Alexander Johnston states that in the ruins at the same place [Mantota] a great number of Roman coins of different Emperors, particularly of the Antonines, have been found."

In the Journal of the Ceylon Branch of the Royal Asiatic Society, vol. I. (3), 157, in a Paper by the Hon. Mr. Justice Stark, mention is made of "a coin of lead 75 grains in weight, having on one side a Roman head, and on the other an eagle standing on a thunderbolt, as in the Roman *Scrupulus*." There is no further information given.*

Kalpitiya.

Mr. H. W. Codrington, C.C.S., possesses two small copper Roman coins found at Kalpitiya. He kindly sent them to

* This sounds like a billon coin, and was probably Græco-Roman.

me to examine. Unfortunately they are quite illegible, but they undoubtedly belong to the same period as do the bulk of those described, *i.e.*, between Constantine I. and Honorius.

Hendala.

At Hendala, at the mouth of the Kelani-ganga, was found a Roman coin with the full face head of a young Emperor. The reverse is a winged Victory bearing a long cross. I think the coin belongs to either Arcadius or Theodosius II.

Colombo.

In 1889 a large find of nearly 300 coins was made in Colombo, in or near the Military Cemetery, and was sent to Mr. H. C. P. Bell for identification.

Mr. Bell's identification and notes appeared in the "Ceylon Literary Register" in November, 1891; and from there I have taken over their descriptions and added them to my list. They include the following:—

Crispus, No. 1.	Constantius Gallus, No. 1.
Constantinus II., Nos. 2, 3.	Valentinianus II., Nos. 1, 2, 4.
Constans, Nos. 1, 2, 3.	Theodosius I., Nos. 3, 4, 5.
Constantius II., Nos. 1, 2,	Arcadius, Nos. 3, 6, 7.
3, 4.	Honorius, Nos. 1, 2, 3, 4, 5.

Colombo (Galle Face).

In 1887, while the Galle Face battery was being built by prison labour, several hundred Roman coins were turned up. Little trouble seems to have been taken to collect them, but there are a few specimens in the Colombo Museum, and both Mr. H. C. P. Bell and Mr. C. D. Vigers have kindly allowed me to see specimens they secured. All are of precisely the same period as the majority of the finds, and they include the following:—

Constantius II., No. 1.	Arcadius, No. 7.
Valentinianus II., No. 1.	Honorius, Nos. 2, 3.
Theodosius I., No. 6.	

Colombo (Pettah).

Mr. H. C. P. Bell has at different times picked up Roman coins in various shops in the Pettah, Colombo. Of course, being found in the bazaar of a great cosmopolitan city, there is always the possibility of their having been imported in some way or other, but it is best, I think, to include them among the Ceylon finds. The first is a beautifully struck silver coin of Geta, there are several of the ordinary small brass of the 4th century, and finally a most interesting find of exactly the same type as the Naimana coins.

Geta, No. 1	} Naimana type.
Arcadius, No. 3	

Balapitiya.

In 1896 finds of Roman coins were made on two of the little islets in the Madu-ganga. The larger find was on Perumamarakkala-duwa, and is said to have aggregated about 13 lb. This, taking the average of the coins I have examined, would amount to some 5,800 coins. It was rumoured at the time that there were gold and silver coins in the hoard, but none ever came to light.

Mr. H. C. P. Bell secured some 250 of the coins, and has kindly allowed me to examine them. The majority are very much corroded, but the following are legible:—

Constantinus I., No. 4.	|	Theodosius I., Nos. 1, 5.
Constans, Nos. 4, 5.		Arcadius, Nos. 3, 6, 7.
Constantius II., Nos. 1, 2.		Honorius, Nos. 1, 3, 4.
Valentinianus II., No. 2.		

The second find was on the island named Gonaduwa. Its numbers I do not know further than that it was described as a "large quantity."

Of Mr. Bell's twenty-two specimens, the only legible one is Arcadius No. 2.

Bouregoda.

This is a small village near Weragoda in the Southern Province. In 1888 some villagers digging a grave came upon

some Roman coins. Mr. Bell secured forty specimens, among which are the following :—

Constantius II., No. 1.	Arcadius, No. 6.
Valentinianus II., No. 5.	Honorius, No. 2.
Theodosius I., No. 1.	

Hikkaduwa.

Mr. R. Wickremesinghe kindly sent for my inspection seventeen Roman coins supposed to have been found at Hikkaduwa. They included :—

Constantius Gallus, No. 1.	Gratianus, No. 1.
Valens, No. 1.	Arcadius, Nos. 5, 6.

Gintota.

Mr. P. E. Pieris, C.C.S., kindly allowed me to examine some Roman coins in his possession. They were found at or in the neighbourhood of Gintota, were half a dozen in number, and included the following :—

Constantius II., No. 1.	Honorius, No. 7.
Arcadius, No. 6.	

Galle.

In April, 1906, I obtained the following Roman coin in a jeweller's shop in the Fort of Galle :—

Theodosius, No. 1.

Note.—Probably the coins from Hikkaduwa, Gintota, and Galle all form part of some find made in that neighbourhood.

Matara.

Mr. J. P. Lewis obtained two Roman coins from the rest-house-keeper at Matara some years ago. One of them, which he kindly let me see (and has since presented to the Colombo Museum), is a large copper coin of Galerius Valerius Maximianus, No. 1 in the list.

Naimana.

In 1887 or 1888 Mr. A. E. Buültjens found about 300 coins in the possession of a villager, who had dug them up. Seventeen of these are in the Colombo Museum, and Mr. Buültjens kindly sent me ten to examine. These are all he now possesses, as the rest were taken by burglars. All of the coins are imitation Roman. I have described them fully above.

Tissamaharama.

In the Colombo Museum there are four small Roman coins found by Mr. Parker at Tissamaharama. They are not legible, but clearly belong to the same period as the bulk of those described.

Batticaloa.

In the Museum Catalogue five coins are mentioned as being found at Batticaloa. Among them are the following:—

Arcadius, No. 2.

| Theodosius, No. 6.

Anuradhapura.

In the course of excavations at Anuradhapura Roman coins have frequently been found in small quantities at a number of different places, viz., Toluvila, Abhayagiri, Thuparama, Selachaitiya, the Buddhist rail, Sanghamitta's tomb, &c. Unfortunately nearly all the specimens are too much corroded to be identified, though they are evidently of the same period and type as the rest. One Theodosius, one Arcadius, and two coins of the Naimana type are all that can be identified.

Mihintale.

Some fifty or sixty Roman coins were found at Mihintale some years ago. They are of the same type as the majority of the rest, but are too corroded to admit of identification.

Sigiriya.

This is not one "find," but many. Apart from the several heavy finds of coins made in digging the prison rock terrace and the moated islands, Roman coins have been found singly,

and in small quantities together, all over Sigiriya wherever excavated: summit, terraces, and the city below. Indeed, during that period it almost seems as though they were the current coinage of the short-lived capital of Kasyapa the Parricide. Sigiriya's record in coins is as follows:—

Punch-marked eldlings . . 8	Roman coins, chiefly of the 4th century A.D. . . 1,675
Sinhalese coins of the Polon- naruwa period (13th cen- tury A.D.) . . 4	

Such an enormous preponderance of one type leaves little doubt that it was that in circulation. The latest Roman coin is that of Honorius, who died 423 A.D., only a few years before the reign of Kasyapa.

That the coins were freely used is quite evident from their worn condition, and it is quite noticeable that those of older date are much more worn than those of later date. The following have been identified:—

Licinius II., No. 1.	Valens, No. 2.
Constantinus I., Nos. 1, 2, 3, 4.	Gratianus, Nos. 1, 2.
Constantinus II., No. 1.	Valentinianus II., Nos. 1, 2, 3.
Constans, Nos. 1, 4.	Theodosius I., Nos. 1, 2, 3, 5.
Constantius II., Nos. 1, 3, 4.	6, 7.
Constantius Gallus, Nos. 1, 2.	Victor, No. 1.
Julianus II., No. 1.	Arcadius, Nos. 3, 4, 5, 6, 7.
Helena, No. 1.	Honorius, Nos. 1, 2, 3.

Kandy.

In January, 1905, in a jeweller's shop in Kandy, while searching through a basin full of hundreds of mixed copper coins, I found 84 small brass Roman coins. The jeweller did not know where they had been discovered further than that he had bought them from a Kandyan villager who had dug them up. The following were identified and sent to the Colombo Museum:—

Constantius II., Nos. 1, 2, 4.	Theodosius I., Nos. 1, 5, 6.
Constans, No. 3.	Arcadius, Nos. 1, 2, 3, 5, 6.
Valentinianus, No. 1.	Honorius, Nos. 1, 2.
Gratianus, No. 1.	

Mr. H. W. Codrington afterwards obtained one in Kandy, probably in the same shop. It was Honorius, No. 6.

Kurunegala District.

Somewhere in this district were found six coins of Roman emperors. They are thick coins of *billon*, an alloy of copper and silver. Struck at Alexandria, and bearing Greek inscriptions, these coins are not strictly Roman. They are in fact Roman colonial coins, and may as such find a place in this Paper. They are as below :—

Nero, No. 1.	Trajan, Nos. 1, 2.
Vespasian, Nos. 1, 2.	Marcus Aurelius, No. 1.

Badulla.

A fine copper coin bearing the head of Aurelian was found in the Badulla river. Like the above it is a colonial coin, and bears an inscription in Greek.

In the Museum is a small copper coin of Arcadius, which came from Badulla :—

Aurelian, No. 1.	Arcadius, No. 5.
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III.—DETAILED LIST OF THE COINS.

The object of this list is to serve as a reference for collectors who have not opportunities of seeing either collections of or books on Roman coins. It also serves the purpose of showing at a glance exactly what Roman coins have been found in Ceylon.

In a few instances it is rather doubtful whether a coin belongs to the first or second emperor of the same name; and although care has been taken to avoid mistakes of this kind, no claim is made to have attained absolute accuracy.

The overlapping and apparent confusion of dates is explained by the fact that there were often several rulers who shared between them the Empire and the title of Emperor. For instance, Gratianus I. shared his power with Valentinianus I. and Valens, next with Valens and Valentinianus II., and finally with Valentinianus II. and Theodosius I.

Where not otherwise stated, all the coins in the list are small brass. I believe them all to be what are known as "third brass." But the distinctions between first, second, and third brass are so subtle that in some instances this opinion may be wrong.

The letters G, S, or C against a coin denote respectively gold, silver, or copper, the latter being used in its most comprehensive sense of including all forms of brass and bronze.

The following abbreviations occur on coins described :—

"ALE. P" = *Alexandriæ Percussa*, the mint mark of Alexandria.

"Ant." } = *Antiochiæ*, the mint mark of Antioch.

"Ant. A." } = *Antiochiæ officina prima*.

"Ant. H." } = *Antiochiæ octava officina*.

"B. K. P." = (?).

"Concordia Augg." = *Concordia duorum augustorum*, used when two emperors reigned together.

"Concordia Auggg." = *Concordia trium Augustorum*, indicates that at the time of its use three emperors shared the Empire.

"Cons. A." = *Constantinopolis officina prima*. The mint mark of Constantinople.

"Cons. T." = *Constantinopolis tertia officina*.

"C. S." = (?).

"D. N." = *Dominus noster*.

"D. N. Fl. Cl. Constantius Nob. Cæs." = *Dominus noster Flavius Claudius Constantius nobilissimus Cæsar*.

"D. V. Constantinus P. T. Augg." = *Divus Constantinus Pia Tranquillitas augustorum*. Appears on coins of Constantine the Great struck after his death.

"Fel. Temp. Reparatio" = *Felix temporum reparatio*.

"Fl. Helena Augusta" = *Flavia Helena Augusta*.

"Fl. Jul. Constantius Nob. C." = *Flavius Julius Constantius Nobilissimus Cæsar*.

"Gal. Val. Maximianus Nob. Cæs." = *Galerius Valerius Maximianus Nobilissimus Cæsar*.

"Imp. C. Gal. Val. Maximinus P. F. Aug." = *Imperator Cæsar Galerius Valerius Maximinus Pius Felix Augustus*.

"Imp. C. Val. Licin. Licinius P. F. Aug." = *Imperator Cæsar Valerius Licinianus Licinius Pius Felix Augustus*.

"Just. Ven. Mem." = *Iustæ Venerandæ Memoræ*, on a posthumous coin of Constantine I.

"Lug." = *Lugdunensis*, the mint mark of Lyon.

"Max. Aug." = *Maximus Augustus*.

"P. F. Aug." = *Pius Felix Augustus*.

"P. Sept. Geta. Cæs. Pont." = *Publius Septimus Geta Cæsar Pontifex*.

"S M. Ant." } = *Signata moneta Antiochiæ*. The mint mark of Antioch.

"S. M. Ant. B." } = *Signata moneta Antiochiæ officina secunda*.

"S. M. K." } = *Signata moneta Carthaginæ*. The mint mark of Carthage.

"S. M. K. A." } = *Signata moneta Carthaginæ officina prima*.

"S. M. N." } = *Signata moneta Narbonæ* or *Nicomedeiæ*. Mint mark of Narbonensis or Nicomedia.

"S. M. N. A." } = *Signata moneta Narbonæ* or *Nicomedeiæ officina prima*.

"S. M. R." } = *Signata moneta Romæ*. The mint mark of Rome.

"S. M. R. O." } = *Signata moneta Romæ officina*.

"S. M. Tr." } = *Signata moneta Treveris*. The mint mark of Treves.

"Vot. V." = *Votis quinquennialibus*.

"Vot. X., Mult. XX." = *Votis decennialibus multis Vicennialibus*.

"Vot. XX., Mult. XXX." = *Votis Vicennialibus Multis tricennialibus*.

No. **Nero** (54-68 A.D.).

1 .. Obverse : Laureated head of Nero. Right.

(Alloy) "...ΚΑΑΥΚΑΙΣΣΕΒΓΕΡ[Μ]..."

Reverse : Head of Agrippina. Right.

"[ΑΓΡΠ] Π ΠΙΝΑΣΕΒΑΣΤΗ..."

In field "Δ" which indicates 57-58 A.D.

Struck at Alexandria.

Vespasianus (70-79 A.D.).

1 .. Obverse : Laureated head of Vespasian. Right.

(Alloy) "{ANT}OKKAISΣE(B)AONEE Π AΣIANOV."

In field "Β" which indicates 69-70 A.D.

Reverse : Figure of the city of Alexandria standing left, with wreath in extended right hand and sceptre in left.

No legend.

Struck at Alexandria.

2 .. Obverse : Laureated head of Vespasian. Right.

"[ΑΥΤΟ] ΚΚΑΙΣΣΕΒΑΟΝΕΕ Π AΣIAN [OV]."

In field "Β" = 69-70 A.D.

No.

Reverse : Figure of Roma wearing crested helmet,
standing left, spear in right hand and shield
on left arm.

“ P Λ Μ Η . ”

Struck at Alexandria.

Trajanus (98–117 A.D.).

1 .. *Obverse* : Laureated head of Trajan. Right.
(Alloy) “ ΑΥΤΚΑΙΤΡΑΙ . . . ”

Reverse : Eagle to right.
In field “ Λ Δ , ” indicating 100–101 A.D.
Struck at Alexandria.

2 .. *Obverse* : Laureated head of Trajan. Right.
“ ΑΥΤΚΑΙΤΡΑΙΑ . . . ”

Reverse : Canopus of Osiris, wearing head dress of horns,
disc, uræi, and plumes.

In field “ Λ Ε , ” indicating 101–102 A.D.
Struck at Alexandria.

Marcus Aurelius (161–180 A.D.).

1 .. *Obverse* : Bearded and laureated head of Marcus Aure-
(Alloy) lius. Right.

“ . . . ΑΥΡΗΑΙΟC . . . ”

Reverse : Helios in his car drawn by four horses.
In field “ Λ Ζ , ” indicating 163–164 A.D.

Geta (209–212 A.D.).

1 ... *Obverse* : Head of Cæsar. Right.
S “ P. Sept. Geta. Cæs. Pont. ”

Reverse : Standing figure of Minerva. Right.
“ Nobilitas. ”

Aurelianus (270–275 A.D.).

1 .. *Obverse* : Bust of Aurelian, laureated head. Right.
C “ ΑΚΑΔΟΜΑΥΡΗΑΙΑΝΟCCEB. ”

Reverse : Eagle, with open wings, wreath in beak.
Head right.

“ Ε ΤΟΥC. ”

In field “ S , ” indicating 274–275 A.D.
Struck at Alexandria.

Maximianus II. (292-311 A.D.)

- 1 .. *Obverse* : Laureated head of Emperor. Right.
C " Gal. Val. Maximianus. Nob. Cæs."
Reverse : Genius holding in left hand a cornucopia and
with right hand pouring a libation.
" Genio Populi Romani."
In exergue " ANT."

Maximinus II. (308-313 A.D.).

- 1 .. *Obverse* : Laureated head of Emperor. Right.
C " Imp. C. Gal. Val. Maximinus P. F. Aug."
Reverse : Genius with modius on head, on left arm
cornucopia, pouring libation.
In field " B. K. P."
" Genio Imperatories."
In exergue " LUG."

Licinius I. (307-324 A.D.).

- 1 .. *Obverse* : Diademed head of emperor. Right.
C " Imp. C. Val. Licin. Licinius P. F. Aug."
Reverse : Jupiter wearing pallium, holding Victoriola in
right hand and spear in left ; before him an
eagle bearing a wreath in beak.
In field " C. S."
" Jovi Conservatori."
In exergue " S. M. N."

Licinius II. (317-323 A.D.).

- 1 .. *Obverse* : Bust of Cæsar, helmeted head. Left.
C Legend illegible.
Reverse : Winged Victory. Legend illegible.

Constantinus I. (306-337 A.D.).

- 1 .. *Obverse* : Bust of emperor, diademed head. Right.
C " Constantinus Max. Aug."
Reverse : Two soldiers guarding a standard.
" Gloria Exercitus."
In exergue " S. M. N."

No.

- 2 .. *Obverse* : Bust of emperor, diademed head. Right.
 C "Constan[tinus, &c.] (?)."
Reverse : Two Victories bearing wreaths. Legend illegible.
- 3 .. *Obverse* : Veiled head of emperor. Right.
 C "D.V. Constantinus P. T. Augg."
Reverse : Standing figure of Justitia, left, bearing scales in right hand.
 "Just. Ven. Mem."
 In exergue "S. M. A. N. T."
- 4 .. *Obverse* : Veiled head of emperor. Right.
 C "D. V. Constantinus P. T. Augg."
Reverse : Emperor (?) driving a chariot and four horses. Legend illegible.

Crispus (317–326 A.D.).

- 1 .. *Obverse* : Bust of emperor, diademed head. Left.
 C Legend illegible.
Reverse : Across field "Crispus," "Cæsar."
 In exergue "S. M. A. N. T. B."

Constantinus II. (335–340 A.D.).

1. .. *Obverse* : Bust of emperor, diademed head. Right.
 C "Constantinus [P. F. Aug.] (?)."
Reverse : Two soldiers guarding a standard. Legend illegible.
- 2 .. *Obverse* : Bust of emperor, laureated head, looking over left shoulder.
 C "Constanti[nus P. F. Aug.] "
Reverse : Two soldiers, armed, guarding two standards on either side.
 "Gloria Exercitus."
 Exergum illegible.
- 3 .. *Obverse* : Bust of emperor, helmed and paludated, face looking left. Spear over left shoulder.
 C "Consta[ntinus P. F. Aug.] (?)."
Reverse : Winged Victory, left, with spear and shield, within a circle. Legend illegible.
 In exergue "S. M. T. S."
- 4 .. *Obverse* : Emperor's head. Right.
 C "Constantinus [P. F. Aug.] (?)."

Reverse : Two soldiers guarding two standards on either side.

"Gloria Exercitus."
Exergum illegible.

Constans (337-350 A.D.).

1 .. *Obverse* : Diademed head of emperor. Right.
C "D. N. Constans. P. F. Aug."

Reverse : Laurel wreath enclosing "VOT. XX. MULT. XXX."
Exergum illegible.

2 .. *Obverse* : Diademed head of emperor. Right.
C "D. N. Constans. P. F. Aug."

Reverse : Winged Victory, left, holding wreath.
"Vir. Aug."
Exergum illegible.

3 .. *Obverse* : Diademed head of emperor. Right.
C "D. N. Constans. P. F. Aug."

Reverse : Two winged Victories bearing wreaths.
Legend illegible.

4 .. *Obverse* : Diademed head of emperor. Right.
C "D. N. Constans. P. F. Aug."

Reverse : Two soldiers guarding a standard.
"Gloria Exercitus."
In exergue "S. M. K. A."

5 .. *Obverse* : Diademed head of emperor. Right.
C "Constans. P. F. Augg."

Reverse : Illegible.

Constantius II. (337-361 A.D.).

1 .. *Obverse* : Diademed head of emperor. Right.
C "D. N. Constantius P. F. Aug."

Reverse : A soldier spearing a prostrate horse and its rider.
"Fel. Temp. Reparatio."
In exergue "ANT" or "S. M. T. R." or
"A. L. E. P."

No.

- 2 .. *Obverse* : Diademed head of emperor. Right.
C "D. N. Constantius P. F. Aug."
Reverse : Within laurel wreath "VOT. XX. MULT.
XXX."
Exergum illegible.
- 3 .. *Obverse* : Diademed head of emperor. Right.
C "D. N. Constantius Aug."
Reverse : Two soldiers guarding a standard.
"Gloria Exercitus."
In exergue "S. M. A. B." (? S. M. T. R.).
- 4 .. *Obverse* : Diademed head of emperor. Right.
C "D. N. Constantius P. F. Aug."
Reverse : Standing figure, helmed, holding spear in left
hand, right arm extended.
"Spes Reipublicæ."
Exergum illegible.

Constantius Gallus (351-354 A.D.).

- 1 .. *Obverse* : Diademed head of Caesar. Right.
C "D. N. Fl. Cl. Constantius Nob. Caes."
Reverse : Soldier piercing a fallen horse and rider with a
spear.
"Fel. Temp. Reperatio."
Exergum illegible.
- 2 .. *Obverse* : Bust of Caesar, diademed head. Right.
C "Fl. Jul. Constantius Nob. C."
Reverse : Two soldiers guarding a standard.
"Gloria Exercitus."
In exergue "S. M. K. A."

Julianus II. (358-362 A.D.).

- 1 .. *Obverse* : Head of emperor. Right.
C Legend illegible.
On comparing this head with an illustration
in "Roman Imperial profiles," there can be
no doubt that the coin belongs to Julianus.
Reverse : Standing figure.
Legend illegible.

No.

Helena (360 A.D.).

- 1 .. *Obverse* : Bust of empress, diademed head. Right.
 C "Fl. Helena Augusta."
Reverse : Standing female figure, bearing a branch in her hand.
 Legend illegible.

Valens (364-378 A. D.).

- 1 .. *Obverse* : Bust of emperor, diademed head. Right.
 C "D. N. Valens. P. F. Aug."
Reverse : Standing figure (of emperor ?).
 "Gloria Romanorum."
 Exergum illegible.
- 2 .. *Obverse* : Bust of emperor, diademed head. Right.
 C "D. N. Valens. P. F. Aug."
Reverse : Winged Victory, left, bearing a wreath.
 "Felicitas Reipublicæ."
 In exergue "A.N.T." or "A.L.E."

Gratianus (375-383 A.D.).

- 1 ... *Obverse* : Bust of emperor, diademed head. Right.
 C "D. N. Gratianus P. F. Aug."
Reverse : Laurel wreath enclosing "VOT. XX. MULT. XXX."
 In exergue "S. M. K. A."
- 2 .. *Obverse* : Similar to the preceding, but larger, both as regards the head and the letters.
 C
Reverse : Illegible.

Valentinianus II. (375-392 A.D.).

- 1 .. *Obverse* : Bust of emperor, diademed head. Right.
 C "D. N. Valentinianus P. F. Aug."
Reverse : Winged figure of Victory holding a captive by the hair. Monogram of Christ in field.
 "Salus Reipublicæ."
 In exergue "S. M. R. O." or "S. M. K. A."
- 2 .. *Obverse* : Bust of emperor, diademed head. Right.
 C "D. N. Valentinianus P. F. Aug."
Reverse : Laurel (or oak) wreath containing "VOT. X. MULT. XX."
 In exergue "S. M. K." or "S. M. R."

No.

- 3 ... *Obverse* : Bust of emperor, diademed head. Right.
C "D. N. Valentinianus P. F. Aug."
Reverse : Winged Victory, left, holding aloft a wreath.
"Salus Reipublicæ."
Exergum illegible.
- 4 ... *Obverse* : Bust of emperor, diademed head. Right.
"D. N. Valentinianus P. F. Aug."
Reverse : Emperor or soldier walking to right, dragging
small captive by the head.
"Gloria Romanorum."
Exergum illegible.
- 5 ... *Obverse* : Bust of emperor, diademed head. Right.
C "[D. N. V]alentinian[us P. F. Aug.]"
Reverse : Helmed figure seated on a throne with spear in
left hand and some object in right.
"Concordia Auggg."
In exergue "A. N. T. H."

Theodosius I. (379–395 A.D.).

- 1 ... *Obverse* : Bust of emperor, diademed head. Right.
C "D. N. Theodosius P. F. Aug."
Reverse : Winged figure of Victory holding a captive by
the hair. Monogram of Christ in field.
"Salus Reipublicæ."
In exergue "S. M. T. R." or "C. O. N. S. T."
- 2 ... *Obverse* : Bust of emperor, diademed head. Right.
C "D. N. Theodosius P. F. Aug."
Reverse : Laurel wreath enclosing a cross.
Exergum illegible.
- 3 ... *Obverse* : Bust of emperor, diademed head. Right.
C Star behind head.
"D. N. Theodosius P. F. Aug."
Reverse : Three standing figures.
"Gloria Romanorum."
In exergue "S. M. K. A."
- 4 .. *Obverse* : Bust of emperor, diademed head. Right.
C "D. N. Theodosius P. F. Aug."
Reverse : Winged Victory, left, holding wreath.
Legend illegible.

No.

- 5 ... *Obverse* : Bust of emperor, diademed head. Right.
C "D. N. Theodosius P. F. Aug."
Reverse : Laurel wreath enclosing "VOT. X. MULT.
XX."
In exergue "S. M. K. A."
- 6 .. *Obverse* : Bust of emperor, diademed head. Right.
C Star behind head.
"D. N. Theodosius P. F. Aug."
Reverse : Two standing figures with spears.
Legend illegible.
- 7 .. *Obverse* : Bust of emperor, diademed head. Right.
C "D. N. Theodosius P. F. Aug."
Reverse : Laurel wreath enclosing "VOT. XV. MULT.
XX."
Exergum illegible.

Victor (383-388 A.D.)

- 1 ... *Obverse* : Bust of emperor, diademed head. Right.
C "D. N. Victor P. F. Aug."
Reverse : Open gate with two towers, between which
a star.
Legend illegible.

Arcadius (395-408 A.D.)

- 1 .. *Obverse* : Bust of emperor, diademed head. Right.
C "D. N. Arcadius P. F. Aug."
Reverse : Emperor on horseback.
"Gloria Romanorum."
Exergum illegible.
- 2 .. *Obverse* : Bust of emperor, diademed head. Right.
C A star behind head.
"D. N. Arcadius P. F. Aug."
Reverse : Three armed figures standing.
"Gloria Romanorum."
In exergue "S. M. K. A."
- 3 .. *Obverse* : Same as the preceding, but with much smaller
C head.
Reverse : Laurel wreath enclosing "VOT. V."
In exergue "S. M. N. A."

No.

- 4 .. *Obverse* : Bust of emperor, diademed head. Right.
 C "D. N. Arcadius P. F. Aug."
Reverse : Laurel wreath enclosing "VOT. X. MULT.
 XX."
- 5 .. *Obverse* : Bust of emperor, diademed head. Right.
 C .. "D. N. Arcadius P. F. Aug." (Sometimes
 the final "g" is omitted, and the legend
 ends "P. F. Au.")
Reverse : Winged figure of Victory holding a captive by
 the hair. Monogram of Christ in field.
 "Salus Reipublicæ."
 In exergue "S. M. K. A."
- 6 .. *Obverse* : Bust of emperor, diademed head. Right.
 C "D. N. Arcadius P. F. Aug."
Reverse : Emperor standing, with spear and shield,
 being crowned by Victory with a wreath.
 "Virtus Exerciti."
 In exergue "A. N. T. H."
- 7 .. *Obverse* : Bust of emperor, full face, helmed and palu-
 dated, spear over right shoulder, and shield
 on left arm.
 C "D. N. Arcadius P. F. Aug."
Reverse : Concord seated, helmed, spear in right hand.
 Victoriola on left hand.
 "Concordia Augg."
 In exergue "A. N. T. H."
- 8 .. *Obverse* : Bust of emperor, diademed head. Right.
 C "D. N. Arcadius P. F. Aug."
Reverse : Standing female figure. Right.
 "Salus Reipublicæ."
 In exergue "C. O. N. S. T."

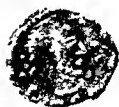
Honorius (394–423 A.D.).

- 1 .. *Obverse* : Bust of emperor, diademed head. Right.
 C Star behind head.
 "D. N. Honorius P. F. Aug."
Reverse : Three figures standing, armed with spears.
 "Gloria Romanorum."
 In exergue "A. N. T. H.," "A. N. T. A.,"
 or "S. M. N. A."

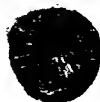
No.

- 2 ... *Obverse* : Bust of emperor, diademed head. Right.
C "D. N. Honorius P. F. Aug."
Reverse : Two figures armed with spears.
"Gloria Romanorum."
In exergue "S. M. K. A."
- 3 .. *Obverse* : Bust of emperor, diademed head. Right.
C "D. N. Honorius P. F. Aug."
Reverse : Emperor standing, armed with spear and
shield, being crowned by Victory with a
wreath.
"Virtus Exerciti."
In exergue "C. O. N. S. A."
- 4 .. *Obverse* : Bust of emperor, diademed head. Right.
C "D. N. Honorius P. F. Aug."
Reverse : Emperor helmed, standing, facing right.
spear in right hand, Victoriola on left.
Legend illegible.
- 5 .. *Obverse* : Bust of emperor, diademed head. Right.
C "D. N. Honorius P. F. Aug."
Reverse : Emperor on horseback.
"Gloria Romanorum."
- 6 ... *Obverse* : Bust of emperor, diademed head. Right.
C "D. N. Honorius P. F. Aug."
Reverse : Winged figure of Victory left, dragging a
captive by the hair. Monogram of Christ
in field.
"Salus Reipublicæ."
In exergue "C. O. N. S. T."
- 7 .. *Obverse* : Bust of emperor, diademed head. Right.
Star behind head.
"D. N. Honorius P. F. Aug."
Reverse : Standing figure of Victory (left) offering
some object to (?) emperor.
Legend illegible.

obverses



Reverses



APPENDIX.

EVERY coin collector knows what endless toil and trouble, besides straining of the eyes, is incurred in the cleaning of old coins that are caked with green or red patina. A certain amount of this incrustation can be loosened by the use of lime juice, citric acid, &c., but in a large number of cases the only method which seems available is the use of a knife. This is not only a great trouble and a danger to the coin, but often the result is unsatisfactory.

It may therefore be of interest to briefly describe the method adopted by the Archæological Survey Department. The method is the invention of Herr Krefting, and is described in detail in a little book called "The Preservation of Antiquities," published by the Cambridge University Press. The results are most satisfactory. If the inscription or design that was on a coin is completely gone, this method of treatment can do nothing. But if the inscription is still there and only obscured by a hard crust of patina, Krefting's method will bring it out in the most wonderful manner, at the same time rendering all the incrustations so soft and soluble that they can easily be removed by rubbing the coin between the fingers with brickdust and water.

The *modus operandi* is as follows: A thin sheet of zinc must be perforated with a bradawl of about $\frac{1}{8}$ inch diameter at intervals of about 2 inches round the sides and at similar distances across the centre. This is placed flat with the sharp edges of the holes uppermost, and on it are laid the copper coins, each distant from its neighbour about the length of its own diameter, that is to say, on a sheet 6 in. by 6 in. about sixteen coins, each $\frac{3}{4}$ inch in diameter, can be laid, and there will be a similar number of holes. On this is superimposed an exactly similar plate of zinc and another layer of coins. In this way six or eight double layers—zinc and coins—can be laid, so that each sheet rests on the edges of the holes in the sheet below, and on the top is placed a covering sheet with the

edges of the holes downwards. The whole are now placed in a glass or earthenware dish and a weight is put on the top, so that each zinc plate is not only strongly in contact with the edges of the holes in the plate below, but also presses on the coins which lie between. Over the whole is poured a 5 per cent. solution of caustic soda (sodium hydrate 2 oz., water 1 quart), which converts the zinc and copper into a galvanic battery. In twenty-four hours the process is complete (unless the coins are very much incrustated, when a longer time is required), and the coins may be taken out and at once thoroughly rinsed in water. They should then be placed in a dish and hot water poured over them. This washing should be repeated four or five times, and the coins should be allowed to soak for a day, after which they can be cleaned by rubbing with soft sifted brickdust and water, grit being carefully excluded. They should then be thoroughly dried by hot sunlight (tropical) or by placing in the oven for a few minutes.

When in the solution the bottom zinc plate should rest on supports (not on the bottom of the dish), so as to allow the dissolved matter to settle.

Everything which has been in caustic soda should be rinsed before handling.

The solution and zinc cannot be used twice, but are so cheap that this does not matter. Prolonged immersion does not seem to damage coins.

Single coins or small batches can be treated easily by merely wrapping them in zinc tapes and immersing. The zinc should be the thinnest procurable.

NOTES ON A FIND OF ELDLINGS MADE IN ANURADHAPURA.

By JOHN STILL.

IN August of this year (1906), during the course of excavations in the north end of the archæological reservation known as Vessagiriya, a find was made of seventy eldlings or punch-marked coins. The interest which attaches to this particular find lies, not in the symbols, for all of the coins are bad specimens, but in its position.

One of the greatest puzzles of Ceylon numismatics is the question as to what coinage immediately preceded that which may be called the Polonnaruwan type.

The punch-marked eldlings are known to have existed in remote antiquity. Major-General Sir A. Cunningham surmises that they may possibly have been current even 1,000 years B.C.,* but so far as I can gather they have not been placed later than up to 150 A.D.†

If this date, 150 A.D., which appears to be estimated to be *about* the limit of their circulation in India, is accepted for Ceylon as well, we are left with a great gap of some 1,000 years almost unrepresented by any indigenous currency. Indeed, practically the only coins found in the Island which can be safely placed in that period are Roman or South Indian.

Judging from the number, distribution, and condition of the Roman coins found, it is safe to assume that they were in pretty general use during the 4th and 5th centuries A.D., so that we are at once confronted with this difficulty. Is it likely that a nation who were accustomed to using

* "Coins of Ancient India," page 43.

† *Loc. cit.*, page 55.

money would remain for many centuries without any? I think it is almost inconceivable that they should do so; yet it remains to be demonstrated that there was a coinage in circulation.

Prof. T. W. Rhys Davids* says that coins were unknown in Ceylon in the 4th century A.D., and ascribes to Parakrama Bahu I. the credit for having introduced the art of coining into Ceylon. But he wrote thirty years ago, and had not a tithe of the information we have now, and he mentions neither eldlings nor Roman coins. Nevertheless, the question regarding the currency has never been settled, and it is the light which it throws on this matter that renders the find under consideration so interesting.

The conclusion I draw from the circumstances of this find is that the punch-marked eldlings were in circulation right up to the time that they were supplanted by the issues of the Polonnaruwan type. In order to give this theory a good chance of acceptance, it will be necessary to enter into considerable detail, and to describe at some length both the coins found and the surroundings of the building in which they were found. I shall take the latter first.

One mile south of Anuradhapura (the present village), in the midst of paddy fields under the Tissa tank, is situated the rock temple Isurumuniya. At the present time the rock itself, the pansala, and a limited compound comprise the whole area generally recognized as Isurumuniya Vihare. But a very short examination of the neighbourhood is sufficient to show that the old boundaries of the vihare were much wider.

Some half a mile from the rocks of Isurumuniya is another much larger group of rocks known as Vessagiriya. It is very easily seen that in this case also the old boundary enclosed very much more land than is included in the present archaeological reservation.

When both of these establishments were in their pristine state they were therefore close neighbours, and not separated, as at present, by half a mile of paddy fields.

* "Numismata Orientalia," Ceylon, page 26, section 48.

In the *Mahavansa** it is stated that Kasyapa I. (479-497 A.D.) repaired the Isurumuniya Vihare, making it larger than before, and calling it after the names of his two daughters and after his own name. His own name was Kasyapa, and his daughters were named Uppalavanna and Bodhi.

The inscription slab, which (it is practically certain) came from a position 50 yards south of the building in which the coins were found, bears two inscriptions.† Both of these chronicle grants made to the monastery Bo-Upulvan-Kasub-giri Vehera.

Even without any further evidence there can be hardly any doubt that the site known as Vessagiriya is that occupied by the vihare built by Kasyapa in the 5th century A.D. But further evidence is found in the resemblance of the style of the recently excavated buildings to the style of much of Sigiriya. Kasyapa's fortress capital; in the fact that in a cave immediately opposite the supposed site of the inscription slab, and within 40 yards of the excavated buildings (writing in September, 1906), there is an inscription, not legible, but of that period, as told by the form of the letters; and in the existence in another cave, within twenty yards of the first, of the remains of a painting in which all that is left strongly resembles in character the famous Sigiriya frescoes.

It may thus be taken as proved that the excavations now in progress are bringing to light a 5th century vihare named Bo-Upulvan-Kasub-giri Vehera.

But both of these inscriptions which mention the name are of far later date. One is dated in the 9th and the other in the 10th year of the reign of Mahinda IV., who reigned, according to Wijesinha's computation, from 975 to 991 A.D. So we are certain that this Bo-Upulvan-Kasub-giri Vehera was flourishing up to about 1000 A.D. This has been already stated in *Epigraphia Zeylanica*, but I have added a little information here to that given in that publication, and have stated the case at greater length, because this find of

* *Mahavansa*, ch. XXXIX., vv. 10-12; also mentioned in *Epigraphia Zeylanica*, vol. I., page 31.

† *Epigraphia Zeylanica*, vol. I., page 29.

eldlings makes it of importance to leave no doubt as to the identification of the site.

Having now proved that the building in which the coins were found was in a flourishing condition 1000 A.D., it remains to show conclusively that the coins had not lain where they were buried for many years prior to the abandonment of the monastery. Fortunately this is settled beyond all doubt by the fact that the coins were found in a passage. on *brick pavement*, at the foot of steps that must have been used daily. They cannot have possibly lain where they were found for even a day during the occupancy of the monastery. But they may have been—probably were—concealed in the roof in a bag. They were found in a heap all together, showing that they had fallen in a bag, or cloth, or box, or perhaps in the folds of a man's clothes. Even if they were concealed in the roof, that should not long antedate their disappearance from use. And for all we know to the contrary, the *vehera* may have been undisturbed until a considerably later period than 1000 A.D.

The evidence so far given is sufficient, in my opinion, to make it almost certain that these coins were in circulation up to, or nearly up to, 1000 A.D. But there is yet another way of gaining evidence on this point. and that is by examining the state of the coins themselves.

As already stated, the coins were found in a small heap. They are seventy in number, and consist of sixty-eight silver coins. one silvered copper, and one copper coin. This last I take to be the core of a silvered copper coin, and I have therefore left it out in all the calculations. Of the sixty-nine, thirteen are circular, and the rest square or oblong, with sometimes a corner cut off, probably for the correct adjustment of the weight to the recognized standard. All of the coins are very much worn, so much indeed that of sixty-nine no less than thirty are worn so smooth as to show no sign whatsoever of the original punch marks.

But as the punch marks were not all put on at one time, but mark successive stages in the life of the coin, a better criterion to their age than the dimness of the device will be afforded

by the degree in which they have deteriorated from their original weight. Major-General Sir A. Cunningham* gives the weights of punch-marked coins as follows :—

$\frac{1}{4}$	Karshapana	=	14.4	grains, called Tanka or Padika.
$\frac{1}{2}$	Do.	=	28.8	do. Kona.
1	Do.	=	57.6	do. Karshapana, Dharana, or Purana.
10	Do.	=	57.6	do. Satamana or Pala.

Now, although the existence on one of these coins of a comparatively well-preserved punch mark is no proof that the coin was *not* in circulation for a long time previous to the application of that mark, yet the existence of very much worn marks is proof that the coin *was* in circulation for a very long time after the punch was used.

Major-General Sir A. Cunningham, after trying some 800 coins, came to the conclusion that the average wear of a Karshapana was about $1\frac{1}{2}$ grain per century.† His estimate is based on quite unequalled experience, and must therefore be accepted as correct in so far as such an estimate can be correct.

Taking into consideration the fact that all of these coins are greatly worn, as may be seen by their marks, which are in all cases almost obliterated, I think we may safely say that all those which are in their present condition 25 grains and upwards in weight must have originally been whole Karshapanas weighing 57.6 grains each.

To take a very much worn coin of 25 grains to have been originally 28.8 grains in weight does not allow enough margin for deterioration in weight consequent on wear. Assuming, therefore, that those which are now 25 grains and over in weight are deteriorated Karshapanas, we have fifty-three coins averaging 30.73 grains. Supposing them to have circulated for fifteen centuries—from 500 B.C. to 1000 A.D.—

* “Coins of Ancient India,” page 46.

† *Loc. cit.*, page 55.

they will have deteriorated at the rate of just over $1\frac{3}{4}$ grain per century. Not very far from Major-General Sir A. Cunningham's estimated rate, which is of necessity only approximate.

Of the remaining coins, those under 25 grains in weight all save one are doubtful. I do not feel at all sure that they, too, were not originally whole Karshapanas, but prefer on the whole to leave them as doubtful. The one concerning which there can be no doubt is one weighing 15 grains. This is so comparatively well preserved that I have little doubt that it is a Kona or half Karshapana. Assuming, as before, that it has seen some 15 centuries of wear, it will have deteriorated in weight at a rate of .87 grain per century. The criterion of weights therefore gives us quite a reasonable amount of corroborative evidence in favour of the protracted usage of these coins.

At the end of these notes I have given a table showing the weight of each coin, and by quoting the number of designs visible on each side, indicating the condition of preservation.

The only other matter worthy of notice is the question of the symbols shown on these coins. Very nearly all are obliterated, but the best examples are shown in the accompanying plate. None of the symbols are peculiar to Ceylon, and all may be found on reference to W. Theobald's Paper on the subject.*

In the list below, where I have noted a coin as bearing punch marks, it does not necessarily mean that these are even partly legible. In most cases they are not. Where even a small dent attests to the former existence of a mark I have noticed it, as it is the more valuable evidence of age and of wear in proportion to its seeming insignificance. The plate shows typical specimens of the find, which have been chosen for their comparatively well-preserved appearance. The numbers refer to the list below.

* "Notes on some of the Symbols found on the Punch-marked Coins of Hindustan," *Journal of the Asiatic Society of Bengal*, 1890, vol. LIX.

Table of Weights and of Wear.

Square and Oblong Coins.

No.		Grains.		Obverse.		Reverse.
1	..	38	..	—	..	—
2	..	35	..	—	..	—
3	..	34	..	—	..	—
4	..	34	..	—	..	—
5	..	34	..	—	..	—
6	..	34	..	—	..	—
7	..	33	..	—	..	—
8	..	33	..	1	..	1
9	..	32	..	—	..	—
10	..	32	..	—	..	—
11	..	31	..	3	..	1
12	..	31	..	—	..	—
13	..	31	..	3	..	—
14	..	31	..	2	..	—
15	..	31	..	—	..	—
16	..	30	..	2	..	—
17	..	30	..	2	..	1
18	..	30	..	1	..	—
19	..	30	..	—	..	—
20	..	30	..	1	..	1
21	..	30	..	3	..	1
22	..	29	..	1	..	—
23	..	29	..	3	..	1
24	..	29	..	1	..	—
25	..	29	..	—	..	—
26	..	29	..	—	..	—
27	..	29	..	—	..	—
28	..	28	..	1	..	—
29	..	28	..	4	..	—
30	..	28	..	1	..	—
31	..	27	..	2	..	1
32	..	27	..	—	..	—
33	..	27	..	—	..	—
34	..	27	..	—	..	—
35	..	26	..	—	..	—
36	..	26	..	—	..	—
37	..	26	..	—	..	—
38	..	26	..	4	..	2
39	..	26	..	3	..	1

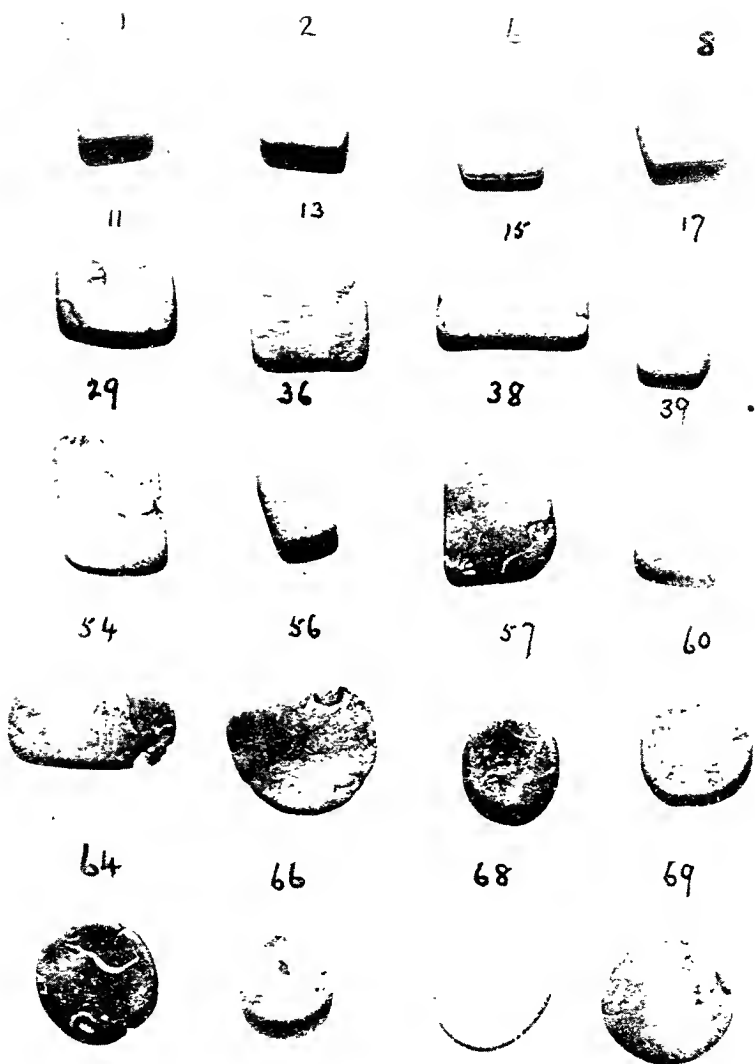
No.		Grains.		Obverse.		Reverse.
40	..	26	..	2	..	1
41	..	26	..	3	..	—
42	..	25	..	—	..	—
43	..	25	..	—	..	—
44	..	24	..	—	..	—
45	..	23	..	4	..	—
46	..	23	..	—	..	—
47	..	23	..	—	..	—
48	..	22	..	1	..	1
49	..	22	..	4	..	1
50	..	21	..	—	..	—
51	..	21	..	—	..	—
52	..	20	..	1	..	—
53	..	20	..	1	..	1
54	..	20	..	3	..	1
55	..	18	..	1	..	—
56	..	15	..	6	..	5

Circular Coins.

57	..	43 $\frac{1}{2}$	..	4	..	—
58	..	38	..	1	..	—
59	..	37	..	—	..	—
60	..	36	..	3	..	1
61	..	35	..	3	..	1
62	..	35	..	1	..	—
63	..	34	..	3	..	—
64	..	33 $\frac{1}{2}$	..	4	..	1
65	..	33	..	—	..	—
66	..	26	..	2	..	1
67	..	24	..	—	..	—
68	..	23	..	1	..	—
69	..	22	..	3	..	—

The numbers in the columns marked "Obverse" and "Reverse" refer to the number of punch marks on the coin. No. 66 is the copper silvered coin. It is broken, and probably weighed several grains more.

Note.—Since writing the above I have noticed, in the Colombo Museum coin cabinet, a Kurumbar coin which supports my idea of the comparatively late survival of the eldlings. In this coin the head of the bull on the obverse has been quite obliterated by punch marks similar to those on eldlings. The *swastika* for one is plainly visible. The Kurumbars flourished broadly from the 6th to the 9th century.



"PUNCH-MARKED" COINS.

SOME EARLY COPPER COINS OF CEYLON.

By JOHN STILL.

ARCHÆOLOGICAL problems may be divided broadly into two classes: Firstly, those which present a great deal of conflicting evidence, often seemingly irrelevant, all of which has to be thoroughly sifted before the rejection of the major part discloses the truth; and secondly, those which at first sight seem to offer no tangible evidence at all.

The study of Ceylon's numismatics constantly brings one up against dead walls of this latter description, where one is confronted by questions of considerable historical interest which seem to be almost impossible to solve.

Perhaps the most important of all these questions is the mystery which prevails regarding the money used by the Sinhalese before the introduction from India of the coinage bearing names. The *Mahavansa* abounds with references to money; but so far as I know there is no existing literature available to the historian or coin collector which throws any light on the nature of this money.

In the hope of to some extent remedying this lack, I have already written on the subject of the silver punch-marked coins or eldlings and on Roman coins found in Ceylon; and it is with the same purpose in mind that these somewhat scanty notes on the early copper money have been put into the form of a Paper.

The materials from which I have drawn my information are the collection of Ceylon coins in the Colombo Museum, the collection in the custody of the Archæological Survey Department of Ceylon,* and Mr. H. C. P. Bell's fine private collection.† Mr. C. D. Vigers, too, has been kind enough to help me.

* Now transferred to the Colombo Museum.

† I desire here to record my indebtedness to Mr. Bell, who not only put his collection and notes at my disposal, but also assisted me much by his great knowledge of the bibliography of the subject, not only in this but also in former Papers on Coins.

There must be coins that would fall within the scope of this Paper in the hands of collectors. Where coins are of little intrinsic beauty or value they are only of interest because they are links ready to be forged into a chain of historic evidence ; and it is a pity when this interest is minimized by their being unknown to any but their owners.

Punch-marked Coins.

Small, square, oblong, oval, or round discs of copper, generally bearing no device of any kind, but occasionally showing light traces of punch-marks, are sometimes found. In all cases that have come before me these are merely the copper cores of silvered punch-marked coins. They are found in all stages of peeling, from those in which the copper is only just exposed to those in which all traces of the silver coating have disappeared.

Copper eldlings have been found in India, and in all probability existed in Ceylon ; but so far as I know none have been yet discovered in this Island.

These are more properly classed with the silver eldlings, but are mentioned here as they might easily be mistaken, when thoroughly worn, for copper coins pure and simple.

Single-die Coins.

During the excavation of the ruin enclosed by the Buddhist railing, close to Abhayagiri Dagaba in Anuradhapura, eight small, roughly square, copper coins were found in company with a few Roman coins of the fourth or fifth century A.D.

At Selachaitiya Dagaba another coin of the same type was found, also with similar Roman coins, and during the excavation of the northern end of Vessagiri a tenth specimen was unearthed, which possesses enough of its character in common with the others to be included in the same class. For lack of another name I have described these as single-die coins.

All of these coins are more or less deeply concave on one side, and either flat or slightly convex on the other.

The natural inference is that they were struck with a die on one side, the other being left plain. Coins of this style have already been described by General Cunningham in his

“Coins of Ancient India.”* Describing the coins of Taxila, he says: “Figs. 6 to 17 are single-die coins, the reverse being quite plain. They present some well-known Buddhist symbols, such as the Chaitiya and the Bodhi tree.” Owing to their hopeless state of corrosion, I am unable to make out any of the devices on any of the ten specimens available; and for the same reason it is difficult to imagine what their original weight may have been. With the exception of two, which are broken, they now weigh as below:—

31 grains	30 grains	23 grains	19 grains
30 „	26 „	22 „	17 „

the heaviest being the one from Vessagiri, which differs from the rest in being circular.

From their company their date may be roughly estimated to be about 500 A.D., for the Roman coins with which they were found at the Buddhist railing and at Selachaitiya are of the fourth and fifth centuries A.D., and the building in which the Vessagiri specimen was discovered flourished from the fifth to tenth centuries A.D., and perhaps later.

In style a single-die coin is the natural link between punch-marked and double-die coins. But in this case I think it must have been the result of degeneration, for the circular double-die coins, to be described later, were undoubtedly modelled on the punch-marked eldlings, and must have existed prior to 500 A.D. Ten specimens, all at present available, are too few to establish the type as being undoubtedly Sinhalese. They may come from India. We can only hope for finds of better specimens.

Circular Double-die Coins.

In 1884 Mr. H. Parker published in the Journal of the C. B. R. A. S. his interesting paper on archaeological discoveries at Tissamaharama. Among other coins found he mentions a roughly circular copper coin bearing Buddhist symbols on either side. This coin was at that time unique; but fifty

* “Coins of Ancient India,” by Major-General Sir Alexander Cunningham, page 61.

or more specimens have since been found at Anuradhapura, and others at Mantota; the coins are, however, very rare. Those from Anuradhapura were found E.N.E. of Abhayagiri Dagaba, not far from the Malwatu-oya. Having had opportunities of carefully examining about thirty of these coins, I am able to give a much more accurate description than was possible from Mr. Parker's single not very good specimen. In general appearance the coins are roughly circular, averaging 1.31 inch in diameter and $\frac{1}{10}$ of an inch in thickness. They are fairly uniform in size, but vary a little in weight, twenty examples I weighed averaging 242.75 grains, and varying from 197 grains to 275 grains. They probably represent the *dwipana* or double copper *karshapana*, in which case their correct weight would be 288 grains, and their value $\frac{1}{3}$ of the silver *karshapana* or punch-marked *eldlings*.*

Although these latter were in use so early as to have been known as "purana," or "old," in the earliest Buddhist literature, they survived in Ceylon at least until the fifth century A.D., and not improbably a great deal later, so that they were almost certainly in circulation together with these large copper coins, which it is natural to suppose represented some integral part of their value.

At first sight it may seem unlikely that coins so diverse in type as punch-marked money and money struck in a double-die were current at one and the same time. But it will be shown further on that these copper coins are modelled from the punch-marked coins, and that their die was in point of fact only a group or arrangement of symbols which already existed, stamped irregularly on the punch-marked coinage. The calling in or suppressing of a coinage would have been very difficult in ancient times, so that even if the *eldlings* were succeeded by an improved silver coinage, after the pattern of these copper coins, they probably continued in circulation side by side until the older money either became exhausted or was discredited through loss of weight. That some such silver coinage existed is probable, but no specimens have as yet been discovered.

* "Coins of Ancient India," page 46.

On all of the double-die coins, with the single exception of the unique $\frac{1}{4}$ *pana* described later, the design is practically the same, though in a few specimens the symbols on the obverse, which I have denominated *H* and *I*, are transposed, and in two cases *I*, the *trisula*, is reversed, and stands upside down.

On both obverse and reverse the design consists of various symbols so arranged as to fill up nearly the whole space of the field, odd corners being occupied by single, or sets of three. dots, and the whole enclosed in a circle.

The obverse is a design consisting of five symbols arranged thus :—



A.—A *swastika* mounted on a staff or pole, and surrounded by what seems to be a fence.

B.—A triangular symbol.

C.—An elephant walking left, with trunk extended.

D.—A *stupa*, symbol of three cells.

E.—A three-branched bo-tree in an enclosure, with, on either side, a *taurine*, or ball and crescent symbol, below the branch.

The reverse shows four symbols arranged thus :—



F.—A *swastika* exactly the same as A.

G.—A similar *stupa* to D.

H.—A symbol consisting of two triangles joined apex to apex, with a bar across the joint.

I.—A *trisula*.

So there are in all eight symbols, viz., A and F, *swastika*; B, triangular symbol; C, elephant; D and G, *stupa*; E, tree; H, double triangle symbol; I, *trisula*, and finally the ball and crescent, which forms part of E.

All of these symbols, except the *trisula*, are found on silver punch-marked coins, a strong argument in favour of these

circular coins having been the immediate successors of the punch-marked eldlings.

All of the symbols are Buddhist ; that is to say, each symbol can be justly taken as indicative of Buddhism, if its surroundings allow of the probability of such being the case.

This sounds rather unconvincing, but, when analyzed, almost all symbolism goes far back beyond the days of the religion which it commonly typifies. Christianity, for instance, uses many pre-Christian symbols. But as the cross, though pre-Christian, is everywhere recognized as emblematic of that religion, so the tree, the *trisola*, and other symbols, each in itself much older than the time of Gautama Buddha, are to be fairly included among Buddhist symbols.

Doubtless to the king who struck these coins they were emblematic of Buddhism and of little else. But taken separately and examined critically they are sufficiently interesting to excuse a somewhat longer notice of them than is perhaps strictly necessary in a coin Paper. The *swastika* is a universal symbol of good fortune, and is found throughout half the world. Its origin and age are alike unknown.

The *stupa* is meant to represent a dagaba enclosing (in this instance) three relic cells. The tree, although not clearly recognizable as a bo-tree, may be presumed to be one, as it is enclosed within a railing.

The ball and crescent symbols which accompany the bo-tree may represent the sun and moon, or perhaps the full and new phases of the moon ; in which case the Buddhist association of this symbol is easily realized, when it is remembered that Buddhist festivals are all at fixed lunar periods.

The elephant, as the vehicle of Indra, who figures so largely in Buddhist mythology, is also Buddhist in this case. Nor must the occurrence of the elephant be thought to be indicative of a decadent period of Buddhism, and thus of comparatively late date, for Buddhism was only a reformation of Brahminism ; and, as Rhys Davids has pointed out, Buddha himself lived and died under the conviction that he was an *ultra* sincere Hindu.*

* " Buddhism," by T. W. Rhys Davids, page 83.

The *trisula* is of remote eld, and its import is unknown. It has been considered phallic, and it has been thought to be a form of the scarabeus. But as it occurs among the propitious signs on Buddha's footprints, it may be included as an adopted child of Buddhism. An example very similar to the type on these coins occurs on an Amaravati carving of Buddha's footprints and another on the pavement round Thuparama Dagaba.

There remain the triangular and the double triangular symbols; and these are so alike that I fancy their origin and meaning is probably in both cases identical.

Mr. Theobald, in his Paper on punch-marked coins,* figures symbols very like these, and explains them as "food receptacles for birds," conjecturing that they have evolved from a figure of a begging-bowl placed on a post. I must confess this seems a little hard to follow. Of the two symbols, the larger seems to be only a more ornate form of the smaller, which is \triangle . On the rock at Vessagiri in Anuradhapura one of the second century B.C. inscriptions ends with a symbol \triangle , evidently closely allied to \triangle , and perhaps not far removed from ∇ , the *crux ansata*, which was the Egyptian hieroglyphic meaning "life to come," and probably in its origin phallic.

But whether food receptacles or no, these symbols are evidently Buddhistic in Ceylon, or they would not occur, as at Vessagiri and elsewhere, in the stone-inscribed dedication of a cell to the "priesthood of the four quarters."

Together with the large coins described above must be included a small coin that was found near Thuparama Dagaba in Anuradhapura. Unfortunately this specimen is (so far as I know) unique, and is much damaged. It weighs in its present state 16 grains; but in addition to being worn it is broken, and in all probability only weighs half or even less than half of its original weight. I am inclined to think that it probably was the $\frac{1}{4}$ *pana* of 36 grains, and thus $\frac{1}{8}$ of the larger coins described above.

* "Notes on some of the Symbols found on the punch-marked Coins of Hindustan," by W. Theobald.—Journ. of the Asiatic Society of Bengal, 1890, Part I., No. 3.

On the obverse appears part of an elephant with extended trunk, and above that a triangular symbol. Adopting the same letters as in the larger coins, the obverse, so far as remains, is thus :—



On the reverse the *stupa* and *swastika* symbols occur as on the larger coins, and the double triangle symbol is faintly visible :—



At the end of this Paper an attempt is made to examine the available evidence, and to settle the approximate dates of the various issues described. Absolute and incontrovertible evidence is lacking. But I think the inferences deduced may fairly stand as the most probable estimate until new discoveries either confirm or shake my conclusions.

Coins or Plaques.

What have been already described have, with all their uncertainty of period, &c., at least certainly been money. But the objects now to be described have been the subject of some difference of opinion, the point at issue being “are they money, or are they not?” Having had opportunities of examining some 200 specimens from places widely apart, and having through Mr. Bell’s kindness had access to a good deal of correspondence bearing on the subject which he has carefully kept by him for some years, I am able perhaps to throw more light on this question than has been possible hitherto.

Before entering into the question of whether or no they are coins, and if not coins, what they are, I will fully describe them.

They divide primarily into two and secondly into five types or classes. the first and main division being between (A) those in which the device is struck on to more or less malleable metal, and (B) those which are cast and which would break sooner than bend.

1



2



3



4



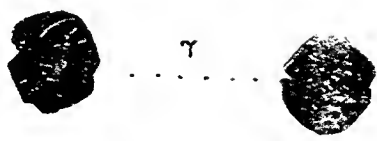
5



6



7



8



9



10



11



12



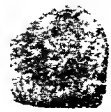
13



14



15





(A) Struck plaques divide into three varieties, which will be dealt with separately.

(i.) Roughly oblong pieces of thin sheet copper, which measure about $1\frac{1}{4}'' \times \frac{11}{16}''$. These measurements are only approximate, and no two pieces are exactly alike.

In thickness they vary as much as in size, averaging about .04 of an inch. In weight they are anything from 20 to 60 grains.

As with their weight, size, and thickness, so with the device, which varies frequently in detail, though never departing far from the common type, which is as follows :—

Obverse.—A standing full-face female figure occupying the whole length of the plaque. This goddess, for such I take her to be, holds in either hand a staff slightly higher than her shoulders and surmounted by some object which may be a trident. On her arms are bangles, and she wears anklets. She also wears conspicuous earrings. Apparently she is draped in a very curt skirt.

Reverse.—A *swastika* exactly like that on the coins described above. In most cases the emblem is thus , but in a few instances . With its staff and rail this *swastika* occupies the whole length of the reverse. On either side of this is a symbol. On one side a bull recumbent, and on the other a vase or pot containing flowers, probably three conventionalized lotus buds. As a rule, the bull occupies the left field and the flower pot the right; but they are often transposed, and not infrequently one or both is reversed and placed upside down.


The manufacture of these plaques is of the most careless description. Evidently sheet copper was sliced into strips of suitable width, which were then chopped up into pieces small enough to fit the die.

No single specimen that I have seen was well struck even on one side, and in no instance is the whole of the device clearly visible. That this is not the result of wear may be clearly seen on examination of the edges, which remain so sharp that almost any specimen would cut the skin if drawn sharply across one's finger. The corners, too, are exceedingly sharp in some instances, and are quite unworn in all.

An examination of the plaques leaves no doubt that they were never circulated and used as money.

In this class (A) (i.) quite 90 per cent. of all the plaques from Mullaittivu, Anuradhapura. Mantota, and Polonnaruwa must be included.

(ii.) The next class are those in which the female figure is replaced by a male figure in a sitting position, with the right leg hanging down and the left tucked up beneath him. In his hand he seems to bear a weapon similar to that held by the goddess, and on his head appears a conical cap. The reverse is in every way similar to (i.), and in all points, save in the figure, the two classes are similar. Of this type (ii.) there are six specimens, five from Mullaittivu and one from Anuradhapura.

(iii.) A single specimen found within Kiribat Vehera at Anuradhapura has evidently been struck, and must come under (A), but in several ways it differs considerably from (i.) and (ii.). It measures $\frac{13}{16}$ " \times $\frac{13}{32}$ ", and is very thin, weighing only $13\frac{1}{2}$ grains. It has been cut from sheet copper, but is of superior workmanship to any of (i.) or (ii.). The obverse is a very rough representation of a female figure as in the larger plaques. The reverse bears the usual *swastika*; but the bull and vase are replaced by two curved strokes thus . What these mean I do not know.

(B) *Cast plaques*.—(iv.) The most striking are oblong plaques with outcurving sides—barrel-shaped—which were unearthed near Thuparama in company with the small double-die coin described as being possibly a $\frac{1}{4}$ *pana*.

There are three specimens all too much damaged for the weight to be accurately determined. It may have amounted to 80 grains. On the obverse is a graceful representation of the standing goddess, and on the reverse is the usual *swastika*, with a symbol in the field on either side. That on the left may be a *trisula*; that on the right I am unable to determine.

(v.) Together with these barrel-shaped plaques and the $\frac{1}{4}$ *pana* was found a single small oblong specimen, which I think is cast. It is much corroded, but appears similar to the general

type, in that it shows a female figure and a *swastika* on the obverse and reverse respectively.

A similar specimen was found in Kiribat Vehera. Before proceeding to weigh the evidence in favour of these plaques having actually been money, I will quote an authoritative definition of what money is.

Mr. W. S. W. Vaux of the British Museum, in a Paper read before the Numismatic Society,* thus defines money :—

“I understand by ‘money,’ a certain measure of value, whether in metal or not does not matter, though obviously metal and precious metal would be most frequently used as the substance, adjusted to a certain definite and unchanging weight, and consisting of several sizes (so to speak), themselves multiples, sub-multiples, or aliquot parts of some other piece.”

This is the theory. In practice coins of primitive manufacture vary somewhat in weight. And of course use and wear carries the variation further, until we get a considerable latitude of weight among coins, which when struck new possibly did not vary 10 per cent. in all. For an instance of this it is only necessary to turn back to the description given of the circular double-die coins, where a maximum variation of $31\frac{1}{2}$ per cent. and a minimum variation of $4\frac{1}{2}$ per cent. from the original *dvipana* of 288 grains may be observed. This is not a larger divergence from the original than is to be expected in the worn condition of these coins.

Twenty plaques of the ordinary type (A i. and ii.) taken at random weigh as follows :—

67 grains	44 grains	37 grains	30 grains
60 „	44 „	36 „	27 „
55 „	41 „	35 „	23 „
52 „	40 „	31 „	20 „
46 „	39 „	30 „	16 „

showing a divergence of no less than 76 per cent. between the maximum and minimum. Even were the plaques worn,

* “On the Coins of Ceylon, with some Remarks on the so-called Ring and Fish-hook Money attributed to that Island.” by W. S. W. Vaux, M.A. *Numismatic Chronicle*, 1853.

this would be a very large variation. But in no single specimen are there any signs of wear. In every case the edges and corners are clean cut and even sharp, a property which would be most awkward in use, and which would be speedily destroyed by actual wear. From the weights given it will be observed that the great variation is not caused by single very high or very low specimens, but represents an even gradation.

Further, it must be remarked that the plaques are more alike in size than in weight, and that certainly no division into various recognizable sizes can be observed.

So, judged on their suitability for use, these plaques show none of the characteristics of money, and would be more ill-adapted to that purpose than are the South Sea Islanders' strings of perforated shell discs.

But the subject is not exhausted by an analysis of their practical value. Let us consider the arguments of Mr. Parker, the original discoverer, and an ardent advocate of the "money" theory.

At risk of being prolix, I shall quote Mr. Parker's arguments* at some length :—

Mr. Parker.

They have in some cases been found buried with coins, and were therefore considered coins by the man who buried them.

The other side.

Various small objects have been found buried with coins. Silver and copper rings, for instance, and small ingots, which may be weights. I cannot see that the association of coins with other objects is any argument in favour of such objects being money.

It is even an argument in the other direction ; for where coins of known form existed, it is unlikely that these most inconvenient plaques would have been used as money.

One of the Mullaittivu plaques has three beads adhering to it.

* Taken from letters held by Mr. H. C. P. Bell.

Any one who wishes to prove they are not coins must, in the first place, give a satisfactory explanation of the *swasti* monogram on them, which as much belonged to royalty as "God Save the Queen" at the end of a modern Proclamation is an indication of its royal authority. I fancy it would be a difficult matter to produce instances of the ancient use of *swasti* without royal authority.

In a book on the *swastika** so many instances are given that the difficulty is to choose those most striking.

Some of its meanings are the sun, male and female principles, those of the Scandinavians, blessing, long life, good fortune, &c. It is found on the spinning whirls of Troy: in the graves of American Indians, engraved on shell or cut from copper. In England, Ireland, and Scotland it has been used decoratively: it is a favourite ornament with the Chinese and Japanese, and was in the seventh century A.D. the Chinese character meaning the sun. It is marked on the pottery of Babylon, Assyria, Chaldea, Persia, Egypt, Greece, Cyprus, and the Swiss lake dwellings. It was the first of the 65 auspicious signs on Buddha's feet. The Jainas use it, drawing it with the finger in spread rice flour, sugar, salt, or any suitable substance. It is a horse brand in Circassia, and has been found stamped on copper ingots from Ashantee and carved on a pillar in Algeria. At the present day it is drawn by the Bengalee merchant on his door, and is used generally as the symbol of good luck.

In fact it is no more royal than is the four-leaved shamrock.

* The "Swastika," by Thomas Wilson, Government Printing Office, Washington, U.S.A.

On one specimen Mr. Parker thought the inscription "Raja Aba" might be distinguished.

Mr. H. C. P. Bell, the greatest authority upon Ceylon's epigraphy, saw the same plaque and was unable even to identify the marks as letters.

Mr. Parker recognized varieties. "There are three distinct classes of plaques: (1) Those from Tissa; (2) those from Mullaittivu; (3) those from Anuradhapura. The Mullaittivu ones are distinguished by the bull, while the Tissa ones differ in workmanship."

Plaques from Mullaittivu, Mantota, Polonnaruwa, and Anuradhapura, which I have examined, all show the bull, and if the Tissa specimens were sufficiently clearly struck, I fancy they would too. But even if the difference does exist, surely it only lessens the probability of the objects being money.

Finally, Mr. Parker connects the sitting figure with the figure on the reverse of the Polonnaruwa type coins.

It may possibly be that both are from a common model. Sedent figures of gods, similar to that on the plaques, have been found in store.

Two of these plaques were submitted by Mr. C. D. Vigers to the British Museum, and were pronounced to be probably votive offerings.*

Mr. S. M. Burrows sent four to Dr. Burgess of the Indian Archaeological Survey, and received a reply as below:—

"The plaques I have to report are *not* coins, but are much like the Sati and Pitri plaques (in silver) worn in Rajputana by living relatives to secure peace to the spirit of deceased Satis (wives and mothers) and Pitris (fathers). They are in fact a sort of charm. Yours bear the figure of some Buddha goddess, the *swastika*, &c., and are probably not at all *very* old objects."*

This appears to settle the question. As the point appears never to have been discussed in any literature available to the student, perhaps the length of this disquisition may be pardoned.

* From letters in Mr. Bell's possession.



Summary.

Having discussed all the evidence available, it will be interesting to see how it bears on the original problem as to what was the currency in Ceylon prior to the establishment of the coinage bearing the names of kings, which was introduced in about the twelfth century A.D. or perhaps a little earlier.

Gold we have none.

Silver is represented by the punch-marked eldlings, which probably were in circulation from the invasion in the sixth century B.C. up to the fifth and perhaps even the tenth century A.D. Probably these ceased to be manufactured many centuries before their final disuse.

Copper is represented (i.) by the punch-marked coins, most or all of which are probably the cores of coins originally silver ; (ii.) by the single-die coins, of which no specimen even partly legible has yet been recorded, and which may not belong to Ceylon ; (iii.) by the circular copper coinage, which was the result of grouping punch-marks in one die ; and (iv.) by the coins struck in imitation of the Roman issues of the fourth and fifth centuries, which have been described in my Paper entitled "Roman Coins in Ceylon." These are all the money we know of during a period of fifteen centuries.

As for their dates—

(i.) The punch-marked coins were, as already stated, used from the earliest historical times up to possibly 1000 A.D. They have been found in company with Pallavar and Kurumbar coins of about 700 A.D., and a large number were discovered at Anuradhapura in a fifth century A.D. building. This I have dealt with in a separate Paper called "Notes on some Eldlings."

(ii.) The single-die coins were coeval with the Roman coins, say the fourth and fifth century A.D.

(iii.) The double-die circular coins have never yet been determined, but I think light can be thrown on the subject and an approximate date gained.

Within the dagaba called Kiribat Vehera coins were found during the excavation at various depths. At 28 ft. from the

surface a plaque of type V. was found in company with three Pallavar coins, and near to this a plaque of type I. was discovered.

During excavations near Thuparama Dagaba a plaque of type V. and several of type IV. were found together with the unique circular double-die $\frac{1}{4}$ *pana*.

Near Elala Sohona at Anuradhapura plaques of types I. and II. were found together with Pallavar coins.

This all goes to prove that the Pallavar coins, the plaques, and the circular double-die coins were in existence at one and the same time.

The Pallavar dynasty ended in the seventh century A.D.

How long before and after this period the plaques and circular coins were in use it is hard to say.

Mr. S. M. Burrows found some plaques in the Jetavanarama at Polonnaruwa, which brings them up to about 1200 A.D. That the circular coins lasted so long I think most improbable. For, not being liable as are gold and silver to be melted down for jewellery, we should find them at Polonnaruwa if they were current much after 800 or 900 A.D. Probably they existed from a fairly early date up to somewhere about the end of the Anuradhapura period.

The general result of this Paper is to establish the following points :—

That the coinage of Ceylon in early days was very scanty indeed.

That there was a single-die coinage in the fourth or fifth century A.D., *possibly* struck in Ceylon.

That a double-die money of a most interesting character existed up to somewhere about 700 A.D., and was certainly the immediate successor of the copper punch-marked money, which probably went out long before its type in silver did.

That the oblong plaques were used from the seventh to the twelfth centuries A.D., and very likely both earlier and later.

And that they were not money.

5. The CHAIRMAN said he thought the Papers were of considerable value. Some old opinions were upset, and some were confirmed. Spence Hardy mentioned that in the early laws of Buddhism the difference between coined money and bullion was recognized. He (the speaker) was under the impression that local gold coins had been found in Anuradhapura of an earlier date than the Christian era. Mr. Still, however, said that no Ceylon gold coin was known before the twelfth century. He was sure they had all been interested by the Papers; and he was only sorry the weather had interfered with the attendance. He hoped that further light would be thrown, by new finds of coins, on the subject—in confirmation or correction.

6. Dr. A. NELL next proposed a vote of thanks to Mr. Still. In England whenever such a discovery was made there were quite a dozen experts to give their opinions. Unfortunately very few coin experts were to be found in Ceylon. They were indebted to Mr. Still for the results of his researches. He was sure they would join heartily in a vote of thanks to him for his Papers.

7. Mr. J. HORNELL seconded. There was more yet to be brought forward regarding the intercourse of Ceylon with the Romans. It was stated that an old King of Madura had for his bodyguard Greek and Roman mercenaries. That was in the second century; and gave the suggestion how the Roman coins found their way to India and Ceylon, not to speak of trade between Egypt, Southern India, and Ceylon.

8. Mr. C. M. FERNANDO said that, regarding the Roman coins found in Ceylon, Mr. Still seemed to him to attach too much importance to the question of weight. Pliny, in his account of the shipwreck off the coast of Ceylon, said that when the shipwrecked farmer went before the Sinhalese king what surprised the latter most was that all the coins were of the same weight, which showed that inequality in weight in the Ceylon coins was the common thing. The Romans had a military outpost in South India; and may be the Naimana coins were a local coinage at that military outpost. Regarding trade between Rome and Ceylon, cinnamon from Ceylon was sold in the streets of Rome 1900 years ago, and was more valuable than rubber in the present day.

9. The vote to Mr. Still proposed by Dr. Nell was carried with acclamation.

10. Mr. R. JOHN proposed a vote of thanks to the Chairman.

Mr. FERNANDO seconded.—Carried.

GENERAL MEETING.

Colombo Museum, November 4, 1907.

Present :

His Excellency Sir Henry McCallum, G.C.M.G.,
Patron, in the Chair.

The Hon. Sir J. T. Hutchinson, Vice-Patron.
The Hon. Mr. Hugh Clifford, C.M.G., Vice-Patron.
The Hon. Mr. J. Ferguson, C.M.G., President.
Mr. P. Freudenberg, J.P., Vice-President.

Mr. R. G. Anthonisz, Govern-
ment Archivist.

Mr. F. J. de Mel, M.A., LL.B.

Mr. C. M. Fernando, M.A., LL.M.

Mr. D. B. Jayatilaka, B.A.

Sir William Mitchell.

Mr. M. A. C. Mohamad.

Mr. P. E. Morgappah.

Dr. A. Nell, M.R.C.S.

Mr. James Pieris, M.A., LL.M.

Mr. T. Rajapakse, Gate Muda-
liyar.

Mr. F. A. Tiseverasingha,
Proctor, S.C.

Mr. F. E. Wait.

Mr. J. Harward, M.A., and Mr. G. A. Joseph, Honorary Secretaries.
Visitors : Twelve ladies and seventeen gentlemen.

Business.

1. Read and confirmed Minutes of last General Meeting held on September 30, 1907.

2. HIS EXCELLENCY THE GOVERNOR—after preliminaries—called on Mr. R. G. Anthonisz, Government Archivist, to read the following Paper by Mr. Donald Ferguson on “Joan Gideon Loten, F.R.S., the Naturalist Governor of Ceylon (1752-57), and the Ceylonese Artist de Bevere” :—

JOAN GIDEON LOTEN, F.R.S.,
the Naturalist Governor of Ceylon (1752-57),
and the Ceylonese Artist de Bevere.

IN a catalogue entitled *Bibliotheca Néerland-Indica*, issued in 1883 by the well-known bookseller at the Hague, Martinus Nijhoff, occurred the following entry (in French, which I translate) :—

2299. Fauna of the Indian Archipelago and of the Island of Ceylon.—Collection of drawings in colours, representing birds, mammifers, insects, &c., of the Indian Archipelago and Ceylon. 144 folio sheets in two portfolios. f. 300.

These drawings of a really extraordinary beauty from living animals [are ?] by a Sieur de Bevere, who, it would appear, was in the service of Mr. J. G. Loten, who was in the service of the East India Company from 1731 to 1757, successively as Commissary at Bantam,* Governor of Ceylon, &c., and who retired later to Fulham in England. Mr. de Bevere executed his drawings from 1754 to 1781.†

The collection is divided as follows : Birds, 101 sheets ; mammifers, 5 sheets ; insects, 10 sheets ; fishes, &c., 14 sheets ; plants, 14 sheets.‡

Had the Ceylon Government had (as it ought to have) an agent in England on the constant look-out for literary and artistic treasures relating to the Island, the collection described above would now form one of the most valuable exhibits in the Colombo Museum. Now the opportunity is gone, perhaps for ever, for in 1885 the collection was bought by Mr. P. J. van Houten, now President of the Commission of the Colonial Museum at Haarlem, who, at the annual meeting of the council of the Museum in 1905, at which the paintings were exhibited, gave some interesting details regarding their history,

* It was after he had been twenty years in the Netherlands East India Company's service, and had held several important posts, that Loten was sent as Commissioner to the coast of Bantam.

† As Mr. van Houten shows, they were executed between 1754 and 1757.

‡ This division differs from that of Mr. van Houten given below.

his address being printed in the *Indische Mercur* (Amsterdam) of 6th June 1905. In the issue of the same periodical of 13th March 1906 appeared a communication from Mr. van Houten, in which were given further interesting particulars relating to the drawings and the two persons chiefly concerned in their execution. As the majority of these paintings are of Ceylon fauna, and were drawn in Ceylon by a young Ceylonese under the direction of a Dutch Governor of Ceylon, I thought that my fellow-Ceylonese would be interested in their history. I have therefore translated all that Mr. van Houten has written about them,* and have added in a third section such additional information as I have been able to glean.

Croydon.

DONALD FERGUSON.

SECTION I.

This time it falls to my lot to have the honour to draw your attention for some minutes to the subject chosen, which is the collection of plates that for the moment adorns this hall, and, according to the intention of our Director, will remain here on exhibition for a period of four weeks.

For some twenty years I have myself been the lucky owner of these plates, the possession of which I acquired at a book sale of the firm Mart. Nijhoff at the Hague.

“Lucky” owner, I called myself, and I believe that you will consider the word *lucky* rightly chosen when I shall have told you all the facts concerning the plates.

In the first place, they are already fairly old, having been made between the years 1754 and 1757, or just a century and a half ago.

In the second place, they appear, in spite of this, saving for some brown damp-spots on the paper, especially as regards the perfectly fresh colours, as if they had been drawn and coloured only in our present time. And that notwithstanding that they were made in the tropical regions, namely, in Ceylon and Java, in the stirring times of the East India Company,

* All the footnotes to the first two sections are by myself, and Mr. van Houten is in no way responsible for them.—D. F.

where they had to undergo the disadvantages of the often unhygienic and damp dwellings of the Company's servants, and these in addition to the great danger of long voyages by sailing ship.

As the third and, in my opinion, perhaps the most remarkable feature, I may mention that the artist was a man of three-fourths Indian (namely, Ceylonese) blood, who had received very little instruction, certainly none in drawing or painting, and yet in spite of this produced this work, which—as I hope presently further to demonstrate—deserves our admiration in a high degree.

Let me now name the artist to you and tell you the little that I know regarding his person.

He was named de Bevere, and was what we should nowadays call an Indo or "country-born," but was at that time reckoned among the "native Christians," according to the note on one of the plates of his employer, J. G. Loten, who there calls him "the untaught Christian Cingalese,"* to which he adds the following regarding his origin †:—"His father, whom I have known, was a natural son of the major de Bevere (of the most noble and ancient family of de Bevere) by a Cingalese or black Portuguese woman; this son was married at Colombo with a similar brownish woman of whom the artist was a son. In 1755 the father seemed about 50 or 55,‡ the mother 50, the son I guessed was *circa* 22, was on [*sic*—? in] the Surveyor's office somewhat instructed in handling compasses and scales." In a letter written in 1781 Loten also says of him: "a youth born of native Ceylonese parents, living with me and helping me very much in drawing."

From this it appears that de Bevere was unmarried; that he accompanied Loten when the latter was transferred to Batavia in 1757; and also that he did not attain to any considerable age. In one of the notes, made by Loten later in England on the plates, we read of "the late de Bevere." That was about the year 1781.

This is all that I know at present of the artist.

* The words quoted are in English.

† The quotation that follows is also in English.

‡ On this, see footnote further on.

Let me now for some moments direct your attention particularly to the artist's work, I mean to the plates themselves. They are all drawn from life or from newly-killed animals.

In number 144 paintings, they depict :—5 mammals, 103 birds, 7 fishes, 3 crustaceans, 3 cephalopod molluscs (so-called "ink-fish"), 10 insects, 13 plants ; there being besides on the plates of birds also various plants represented from life.

There are in addition, being in a separate group, ten plates that are not by de Bevere, but were executed by others and mostly in later years, which were in the collection as I bought it.

You see that the pictures of birds form by far the majority. It also seems to me that these are in the main the most beautiful in execution.

Regarding the execution and the value of these plates, now a single word.

Although it cannot be ignored that certain figures are somewhat stiff and, owing to insufficient shading, do not entirely represent the rounding of the bodies, they are otherwise deserving only of praise.

Let us notice, first of all, the complete firmness of the hand that controlled the drawing pencil and brush, whereby everything appears quite distinctly on the paper, and in addition the astonishing precision with which forms and colours are represented. The artist extemporized nothing, but remained true to nature even to the smallest details, were it a bird, a fish, a flower, or anything else that he was delineating. That precision was demonstrated to me still more clearly when last week, assisted by Dr. van Oort, in the National Museum of Natural History at Leiden, for the identification of the birds depicted, I compared the plates with those in standard works of more recent date or the stuffed birds in the collection there. There, where, as is so often the case, various kinds closely allied and much resembling each other exist, the painted ones were always recognizable by little peculiarities of the plumage.

I may by way of explanation refer to two points. Look, for example, in the picture of the Ceylonese Lemur,* at the form of

* The Ceylon Loris or Sloth : see picture in Tennent's *Nat. Hist. of Ceylon* 12. Plate xlv. in Brown's *New Illust. of Zool.* is of the Lemur, but whence it is copied is not stated.

the very small hands and feet and the reciprocally unequal length of the fingers and toes. In the case of the birds, attention should be paid to the so-called beard-hairs which some kinds bear at the root of the beak, the colours so varying of the iris of the eye and of the eye-circles, the size and form of the cutaneous scutellæ or excrescences on the legs and toes; in connection with which I specially draw your attention to the correct representation of the characteristic skin of the foot of the parrots, and, on the other hand, the entirely different one of the ducks, also to the difference in the placing of the toes, in proportion as we have to do with sitters or with climbers; the same with respect to the web of swimmers and paddlers.

And now let us observe once again how de Bevere knew how to handle the colouring brush. Whether it be dark simple tints or fiery and variegated colours, broad surfaces or fine lines, he knows how to represent everything faithfully, be it with bird, insect, or plant. He shrinks from nothing; whether it be that he has to do with the finely marbled plumage of an owl, the handsome feather shades of a gay-coloured barbet, the metallic lustres of other birds' bodies, the eye of a peacock's feather, the body of a fish glistening like mother-of-pearl, a satiny butterfly's wing, a fine plant-leaf with coloured veins, or the delicate transitions of colour in the corolla of a flower.

And then several of the plates considered in their entirety, such as those of the Little-eared Owl,* the Little Barbet,† the Paradise Flycatchers,‡ the pair of little Honeysuckers§ on the tree-stem overgrown with orchids, the nest of the Tailor-bird,|| are these not gems of natural life?

I flatter myself to have thus said enough to commend these plates to your special attention and to that of your artistic friends and acquaintances.

* The Little Horn Owl referred to below.

† The Red-crowned Barbet of Brown's *New Illust. of Zool.* (see *infra*).

‡ This plate does not appear to have been reproduced in any of the works mentioned later on.

§ I am uncertain if this plate has been copied in any of the works described under Section III.

|| See further on regarding this.

I have however with this not yet said all that is to be told of the plates.

We rightly praise the maker, the skilful artist de Bevere, but should be incomplete and even ungrateful if we did not remember with respect the man who discovered and caused expression to be given to de Bevere's talent, who indeed probably took a practical interest in the preparation of the plates. I also venture to think that your attention will be well bestowed upon some particulars that I can tell you regarding his career and the further history of the plates.

The man who set de Bevere to the work and paid him for it was—I have already a while ago named him several times—Joan Gideon Loten, during the years 1731 to 1757 in the service of the Netherlands East India Company, and steadily climbing up to their most important offices. What I can tell you regarding his personality and his services I owe, first, to his own notes, made upon the back of the plates and in a couple of bundles of papers left by him, which form part of the collection; but second,—having had my attention drawn thereto by that widely-read expert in documents relating to the colonies, Mr. G. P. Rouffaer at the Hague, whom I hereby thankfully mention,—especially to the *Kronijk van het Historisch Genootschap te Utrecht*, 16th year (1860), 4th series, part I., wherein on page 106 and following appears a detailed report from the hand of the late Prof. P. J. Veth on papers left by Loten. Of the papers themselves, which I should so willingly have consulted, in the hope of learning further details of the life of the testator, all trace has, alas, since been lost. At least I have not yet, in spite of investigations made, succeeded in finding them again.

From Prof. Veth's report I borrow the following:—

Joan Gideon Loten left 28th December 1731,* in the rank of under merchant, by the ship *Beekvliet* from Amsterdam. The ship formed part of a squadron of five ships, and put to sea from Texel, 4th January 1732. In the beginning of August they arrived safely at Batavia.

* For information regarding Loten's parentage and birthplace see Mr. van Houten's second paper below.

Animated with much love and sympathy for nature, especially the animal world, Loten made several excursions in the neighbourhood of Batavia, such as to Tandjong-Priok, Tanahbang, the island of Onrust, &c.

He did not, however, remain long in Batavia. On 10th July 1733,—Prof. Veth writes 1732, which, however, cannot be correct,—being already appointed fiscal of Java's north-east coast, and having on 24th August of that year married Anna Henrietta van Beaumont,* he left on 10th September with his wife per ship 't *Huis de Vlotter* for Samarang, where he arrived on 29th September—thus after a 19-days' voyage.

He continued with his business duties to study natural history, and made *inter alia* an excursion inland from 6th to 10th November 1740, and appears to have then taken an interest also in the architectural antiquities of Java.†

Re-appointed to Batavia in 1741, he returned thither per ship *Zorgwijk*, and remained there this time until the beginning of 1744, when, being nominated as Governor of Macassar, he embarked thither with his wife and a little daughter on 2nd March on board the ship *Adrigheem*, to arrive at the place mentioned on 24th March. On the "Journael in 't edele Compagnieschip Adrigheem van Batavia na Makasser," kept by the skipper Herbert Sam, and read by Prof. Veth, Loten made some notes, and says therein with regard to the said "Capteyn Herbert Sam" that he was "I understand from Dordrecht, of a good family, but a dissolute and not very polished man."

Advanced to Councillor Extraordinary of India,‡ Loten in 1750§ handed over the government of Macassar to his successor, Rosenboom, at the same time leaving him a memoir (printed in the works of the Utrecht Society) comprising a detailed

* Regarding whom see *infra*.

† It was during his residence at Samarang that Loten's three children were born, only one of whom survived (see under Section II.).

‡ In December 1747 (see Hooykaas, *Repertorium op de Koloniale Litteratuur* ii. (1880) 104).

§ On 17th October 1750, according to Robidé van der Aa in the paper cited *infra*.

report of the state of the Government of Macassar and of what the writer as Governor had accomplished.

From the other papers quoted by Prof. Veth in the journal named it appears that in 1752 Loten was nominated as Governor of Ceylon,* and on 30th September of that year arrived at Colombo per ship *Giessenburg*. There he discovered the artistic talent of de Bevere, and got him to prepare the majority of the plates exhibited.

On 11th† August 1755 his wife died in Colombo.

Loten occupied the Governorship until March 1757, when with the rank of "Councillor Ordinary of Netherlands India"‡ he returned to Batavia, entertaining the purpose of shortly leaving the service of the Company and setting out upon the return voyage to the fatherland.

From a paper written at Colombo in February 1756, and addressed to the Political Council, it appears that he experienced great difficulties with one of his head officials, the upper merchant and chief administrator Noël Anthonie le Beck.§ Prof. Veth also remarks that Loten's rule in Ceylon was much disturbed by internal commotions, fear of attack from external enemies, and great scarcity of finances.|| There also existed from his hand a "Geprojecteerd Reglement ver-vattende d' ordres die men in cas van eenig onverwagt allarm

* In succession to Gerard Joan Vreelant, who died in February 1752, after a governorship of under a year. The commandeur of Jaffna, Jacob de Jong, acted as Governor until Loten's arrival (see C. As. Soc. JI. xi. 141, Wolf ii. 75, 126). Wolf was in Ceylon during the whole of Loten's governorship, but, being in Jaffna, did not come in contact with him, and says nothing of his rule. In the C. As. Soc. JI. viii. 430-3 (misprinted 336-9) will be found a letter in Sinhalese, with translation, written by Loten from Colombo on 4th July 1754, to the Siamese priest Upāli, who, with other *theras*, had recently arrived in Ceylon in response to an embassy sent to Siam by King Kīrti Śrī Rājāsīnha (see C. As. Soc. JI. xviii. 17-44).

† This should be 10th : see second paper *infra*.

‡ According to Robidé van der Aa (*u. i.*), Loten was raised to this rank in October 1754 (see also Hooykaas, *op. cit.* 102).

§ See R. G. Anthonisz's *Report on Dutch Records* 50.

|| For a summary of the events in Ceylon during Loten's governorship, see the *Beknopte Historie* (C. As. Soc. JI. xi. 141-5).

zou hebben t' observeeren,"* of which Prof. Veth says that the document is very circumstantial, whilst the conclusion testifies to the calm deliberation of the author; also a "Ruwe Schets der behuizingen binnen 't casteel Colombo met dier bewoonderen in de jaren 1756-1759."†

That his departure from Colombo was accompanied by special ceremonies appears from a document, printed in the journal named, entitled "Project van het Cerimonieel dat g'observeerd zal dienen te worden zo aan de wal als op de schepen, ten dage van het vertrek van den Wel Edelen Groot Achtbaren Heer Joan Gideon Loten, Raad Ordinair van Nederlandsch India en afgaande Ceylon's Gouverneur en Directeur op den 18^u Maart A^o 1757."‡

Loten at that time took de Bevere with him, as appears from the plates prepared by the latter in the course of the year 1757 at Batavia, and the paintings containing birds, *inter alia* pigeons, kingfishers, and woodpeckers, which Loten managed to shoot or catch in the neighbourhood, as well as of Molucca parrots brought to Batavia.

In accordance with his intention Loten returned home in 1758, and indeed as admiral of the return fleet, reaching his native soil in June of that year (*Tijdschr. Hist. Gen.* 1860, pp. 112-113). The voyage was not entirely free from mishaps; during the passage, in a mutiny on board, his goods were plundered, whereby among other things he suffered great

* "Proposed Regulation comprising the orders that would have to be observed in case of any unexpected alarm."

† "Rough sketch of the dwelling-houses inside the Colombo castle, with their occupants, in the years 1756-1759[? 1757]." Possibly a copy of this interesting document exists among the Dutch archives in Colombo.

‡ "Plan of the ceremonial that shall be observed both on shore and on the ships on the day of the departure of the most honourable Mr. Joan Gideon Loten, Councillor Ordinary of Netherlands India, and retiring Governor and Director of Ceylon, on the 18th of March 1757." (See R. G. Anthonisz's *Rep. on Dutch Rec.* 109.) Loten was succeeded by Schröder or Schreuder (who arrived at Colombo on 27th September 1756), a man of very different temperament, under whose rule broke out a war with the Sinhalese that lasted over six years and cost the Dutch an enormous sum in addition to much loss of life (see *Ceylon Lit. Reg.* v. 84).

inconvenience and the loss of memoranda for a claim that he had upon the East India Company.

He had, namely, during his governorship of Ceylon, advanced to the Company's chest the sum of 82,000 rixdollars. A letter of demand for the repayment of this sum, sent in to Governor-General Mossel* in 1757,† had for the time being the only result that he was asked to complete the sum to 100,000 rixdollars! To this he agreed, and got back the additional 18,000 rixdollars later through his attorney in Java. It cost him more trouble and time to get back the large sum of 82,000 rixdollars. From the transcript printed in the journal mentioned, of a demand presented in Europe, it seems that only in 1763, when he "was in France for the improvement of his feeble health," did he receive the money back, but with a gross deduction of $7\frac{2}{3}$ per cent. for the Company and $\frac{1}{4}$ per cent. on the interest, plus $2\frac{1}{2}$ per cent. commission. In the said letter of demand he asks for the deduction back, as well as the interest at 6 per cent. since 1762. This last, however, was not granted to him. From an "extract uyt de Resolutie door de vergadering der Heeren 17en binnen Amsterdam genomen op Woensdag 1 April 1767,"‡ it appears that he received a refusal.

From various notes and papers that accompanied the plates in the portfolios it appears that Loten was in constant correspondence with students of natural history in the colonies and in Europe, and now and then sent specimens to private persons or learned societies in the motherland. He himself on his homeward voyage brought with him *inter alia* four live crested pigeons,§ but had declined an offer made to him by his cousin,|| Mr. Cornelis Hasselaar,¶ at Cheribon, of deer and birds for taking with him on the same voyage.

* Jacob Mossel, Governor-General, 1751-61.

† Perhaps the marriage of Loten's relative Hasselaar to Mossel's daughter in this year (see note below) induced him to send in his claim at this time.

‡ "Extract from the resolution adopted by the meeting of the Seventeen in Amsterdam on Wednesday, 1st April 1767."

§ See extract from Edwards's *Gleanings of Nat. Hist.* further on.

|| Or nephew (*neef* means either).

¶ Pieter Cornelis Hasselaar married, at Batavia, 24th April 1757, as his second wife, Geertruida Margaretha, the daughter of Governor-General Mossel. (See notice of him in van der Aa's *Biog. Wdnbk. der Nederl.*)

He was himself not unskilful at painting in colours. This appears from the plate with a representation of a sea animal belonging to the jelly-fishes, the so-called "Bezaantje" (*Physalia*),* it being apparently his own drawing, done by himself on the outward voyage to India in 1732, or perhaps a copy of his own drawing. Further, I imagine that both the too deep-red coloured representations of the atlas moth made at Macassar, and thus before he knew de Bevere, are also from his own hand, whilst from other notes written by him it seems apparent that he himself drew other plates besides, or at least assisted in them.

An active man like Loten naturally did not remain quite quiet after his departure from the Company's service, although, as we saw just now, he had for some time to wrestle with less good health.

His view of life we are enabled to know from, amongst others, the cover of a packet, "Notes to serve provisionally for bringing into order what I have successively collected, both in painting from life and in writing, in order to be able to contribute some light upon the natural history of East India and especially of Java, Celebes, and Ceylon," dated 25th December 1754, and underneath quoted Ecclesiastes ix. 10.

If we turn up this text of the "Preacher" we find: "Whatsoever thy hand findeth to do, do it with thy might; for there is no work, nor device, nor knowledge, nor wisdom, in the grave, whither thou goest."

From the papers that he was able to examine, Prof. Veth saw that Loten, among other things, left on 4th November 1775, as I imagine, with a commission,† on board the East India Company's ship *Alkemade*, accompanied by two other ships, for the Cape of Good Hope, where he arrived on 17th February 1776, and on 7th March of the following year set out on the homeward voyage in the ship *Delfshaven*, accompanied by three other ships, and on 13th June anchored at Texel.

* The "Portuguese man-of-war," common on the beach at Colombo after storms (see Tennent's *Nat. Hist. of Ceylon* 400).

† This surmise is incorrect: Loten visited the Cape on private business (see second paper).

In later years Loten settled at Fulham near London.* There he remained zealously studying zoology and botany, and had regular intercourse with men of science and scientific institutions in the motherland and England. He wrote various notes on or with the plates, or completed earlier-made notes. For this the English language, of which he was a thorough master, was often used, conceivably on account of the English friends who received the plates for inspection or for use. I say *for use*, because from the accompanying notes it appears that the plates did frequent service† for those in the well-known work of Edwards's *Gleanings of Natural History*,‡ and the sequel to it by Brown, *Illustrations on Zoology*.§

The loan of the plates for the purpose mentioned often however caused old Loten much vexation.|| We in our time also know well that the loan, especially of books, is even yet accompanied by the danger of receiving them back in a less fresh condition, or sometimes not at all. Now it did not happen to Loten quite so badly, but he could also talk of injuries, and his displeasure at the state in which he often received the plates back sometimes drew from him on the back of the plates bitter expressions at the expense of the engraver; for instance,¶ on that representing the nest of the Tailor-bird:** “The dirty scoundrel was not contented with ruining

* This is hardly accurate, as Loten's residence at Fulham seems to have been confined to the period 1759–65 (see under Section III.).

† As regards this statement see Section III.

‡ *Gleanings of Natural History*, &c. (in English and French), by George Edwards, 3 parts, 1758–60–64. This is a continuation of the same author's *A Natural History of Uncommon Birds*, &c., 4 parts, 1743–47–50–51. (See further under Section III.) The British Museum Library possesses copies of both these works, presented by the author to the Rev. Thos. Birch, containing Edwards's original paintings.

§ *New Illustrations of Zoology*, &c. (in English and French), by Peter Brown. 1776. (See further under Section III.)

|| I think that Mr. van Houten here unwittingly exaggerates: Loten's complaints seem to have been confined to the engraver Mazell, whose ill-treatment of the drawings must have taken place in 1768–9 (see further on), and not to have applied to Peter Brown, to whom Loten lent a number of his drawings for copying some five or six years later.

¶ All Loten's annotations that follow are in English.

** Plate viii. in Pennant's *Indian Zoology*.

one of these drawings of the same object but ruined them both ;” and somewhat lower : “By no means is this reflexion on the late Mr. Sidney Parkinson,* who kept everything very clean,” and finally in the lower corner as a further explanation (erased later, but still legible) : “This was the ——— bungling engraver Mazell.”†

On another plate (also erased, but still legible) : “Made so dirty by the pityable engraver Mazell ;” and on plate 4 (Owl)‡ there follows after a long unbosoming, later made illegible, certainly also directed at the engraver : “What a difference of behaviour between the late worthy Mr. Geo. Edwards and such a scurrilous, scrubby fellow.”

That later, however, the wrath of the old man, even though it were just, was calmed, appears not only from the erasures just referred to, but from the words, placed under the erased portion of the plates, “Forgive and forget.”

The perusal of Loten’s notes offers the reader moreover in many respects a peculiar pleasure, both because one obtains spontaneously a retrospect to the establishment of the East India Company in the tropics, now a century and a half ago, and also as regards the evidence of accurate observation by the writer, and the often valuable details related by him regarding the ideas of the natives touching the depicted animals and plants or their characteristics and value.§

A couple of examples of this :—Of the *Pitta*, called by Loten “the short-tailed Pye” :|| “I once found such a bird at Colombo inside the citadel in the garden behind the government house after I had resided there quite a year or longer ; it leaped to the ground, and let itself be caught with the hand ¶”

* The talented young artist who accompanied Banks and Cook in their voyage round the world in 1768. He died at sea on 26th December 1771. (See *Dict. of Nat. Biog.*)

† Regarding this man see later on.

‡ The Little Horn Owl, doubtless, forming plate iii. in Pennant’s *Ind. Zool.*

§ It is to be hoped that Mr. van Houten will in some future paper publish the whole of Loten’s annotations.

|| This name is quoted in English. The bird in question is figured in plate cxiv. of Edwards’s *Gleanings* (see under Section III.).

¶ Cf. Legge’s *Birds of Ceylon* 691.

Speaking of the depicted Bee-eater (Merops), he states to have learnt from the natives of Macassar that these birds dig holes in front of their nests in the clayey banks of the rivers, which, as one now knows, is quite correct, since the Bee-eaters agree in this with many Kingfishers. Of the variety of *Copsychus* (birds allied to the Thrushes, which are very warlike and courageous) depicted on other plates, it is also related that in Ceylon it regularly follows and chases the crows with loud cry, and is therefore well called "king of crows."*

Some statements evoke from us, so many years after they were set down, an involuntary smile.

Such, for example, on the painting of the dark-coloured Molucca Lori Parrot (Batavia, 1757), that "it whistled entire hymns and the morning song 'uit mijnes Herten gronde' in the sweetest musical manner."†

In connection with the painting of the Indian Golden Thrush at Macassar, describing the lovely "water-like mellow whistle" of this bird, so written because the writer states there that he is reminded by the noise of the well-known old water-whistle, he adds thereto in 1779 that he had heard from Dan. Mackay‡ that because of its whistle the Gelderland peasants call the Golden Thrush "Hansken van Trurelen."

To the plate representing a pigeon fallen dead on a hot day at Batavia in 1757§ is appended the simple note that he received the bird "from mejuffrouw Verklokken, Caatje Rotgers's daughter, afterwards [the note is apparently written later in Europe] married more than once, now I believe widow of Governor-General Riemsdijk."||

* The name quoted is in English. The bird known in Ceylon as the "King crow" is the Drongo (*Buchanga*), which has the habit described by Loten. The Magpie-robin (*Copsychus*), though a pugnacious bird, does not, I think, chase crows (cf. Legge's *Birds of Ceylon* 388 and 435).

† The quotation is in English.

‡ Probably Daniel, son of Æneas Mackay, and founder of the Dutch family of Mackay: he died in 1745 (see van der Aa's *Ned. Biog. Wdwbk.*).

§ This forms plate vii. in Pennant's *Indian Zoology*, where the fact of the bird's having fallen dead from the heat is stated, with some details (from Loten's notes) regarding the effect of the great heat in Java on the animals there.

|| Jeremias van Riemsdijk, Governor-General 28th December 1775 to 3rd October 1777, when he died. Theodora Rotgers was his third wife (see van der Aa's *Biog. Wdwbk.*).

And there are also more valuable remarks !

For a very long time the paintings, or more correctly copies of them, certainly borrowed from the works of Edwards and Brown, continued to do service for illustrated works. As a valuable proof of this may, *inter alia*, serve the little work published in 1861 in this country by our fellow-countryman the late Prof. P. Harting, the *Bouwkunst van Dieren* (reprint of a paper in the periodical *Album der Natuur*), where at page 266 a wood engraving representing the nest of the Tailor-bird is plainly a copy, though it be a rough one, of de Bevere's plate here present.

In the handsome work of Captain Legge, *A History of the Birds of Ceylon*, mention is also made in an introduction of paintings which in his day Loten had had prepared by a "native artist."* I have not been able to ascertain if that refers to duplicates of the plates in my possession or some others, as also if and where these plates still exist. A letter written by me some years ago to Mr. Legge came back as undeliverable, and inquiries made subsequently through the firm of Martinus Nijhoff of the London publisher led to no result.†

* Mr. van Houten gives these words in English, but they do not occur in the introduction to Legge's work. After mentioning George Edwards's *Nat. Hist. of Uncommon Birds* (the date of publication of which is given as 1743), but not saying a word about Edwards's later work (which, however, is occasionally referred to in the body of the book, sometimes incorrectly), Legge says :—"During the latter half of the eighteenth century Gideon Loten was nominated Governor of Ceylon by the Dutch [*sic*], and, happening to be a great lover of birds, collected and employed people to procure specimens of species which attracted his notice ; and from his labours we first learn something of the *peculiar* birds of the Island. He had drawings prepared of many species, which he lent to an English naturalist [*sic*] named Peter Brown, who published in London, in 1776, a quarto work styled 'Illustrations of Zoology.' The artist who delineated these species was Mr. Khuleelooddeen [*sic*!]. Some of the drawings are fairly accurate ; but others are grotesque and unnatural, showing the poor state of perfection to which the illustration of books had up to that time been brought." In view of the fact that Edwards's beautifully illustrated works had preceded Brown's far inferior production, the deduction in the last sentence is absurd ; and as to the illustrator of Brown's work, it was Brown himself (see further on). Whence Legge got his "Mr. Khuleelooddeen" I cannot imagine.

† Captain Legge resides (if still living) at Hobart, Tasmania.

I hope that what I have been able to tell you has awakened or indeed increased your legitimate interest in and appreciation of the exhibited works. I think I may for to-day leave this portion of our subject with almost the same words with which I ended a more cursory discussion of the plates at a meeting of the Ned. Ornith. Vereeniging: Assuredly it must be acknowledged that both the artist "by the gift of God" de Bevere, as well as Loten, who got him to paint the plates, added his notes to them, and brought them under the notice of men of science, have gained for themselves a peculiar merit in connection with the study of natural history in the tropical regions."

SECTION II.

Thinking that some readers of my address at the annual meeting of the Council of the Museum in 1905, printed in the *Indische Mercur* of 6th June 1905, may possibly take sufficient interest therein as to wish to know something more regarding the two naturalists mentioned and their work, I give below some additional particulars with which further investigation has supplied me, and which on various points supplement what was then said at Haarlem.

Regarding the artist de Bevere himself I have not succeeded in finding anything additional, though, on the other hand, something regarding his Dutch grandfather, the Major de Bevere mentioned by Loten; namely, we find entered in A. J. van der Aa's *Biographisch Woordenboek*, 8th edition of 1854, vol. ii., pt. 2, on p. 488: "Willem Hendrik de Beveren, captain in the service of the E. I. Company," and, on the authority of Fr. Valentyn's *Oud en Nieuw Oost-Indië*, vol. iv., pt. 1, pp. 162 and 168-200,* mention made of his military services in 1706, during the war in Java against Soeropati, in which, led on by his "indomitable courage," he ventured too far into the enemy's territory and suffered a defeat, in consequence of which he was summoned before the court-martial and

* These figures are taken from Valentyn's index, which is very defective and sometimes incorrect. See the figures in the footnotes further on.

acquitted only in 1708. To this had undoubtedly powerfully contributed his valiant bearing, of which Valentyn himself was a witness, at the storming and capture of the fortress of Bangil, in which, in spite of the lack of storming ladders, he was the first on the wall, was thrown down from it by the blow of a pike, which luckily glanced off on his sword-knot, thereupon succeeded in getting upon the wall once more and planted the standard on it, whereby the honour of the capture was due to him.

Valentyn further relates that in 1708 de Bevere, still with the rank of captain, was sent to Ceylon, and there took part in an expedition against the emperor of Candi,* but thereafter again had unpleasantnesses with the Company, which Valentyn hopes to recount later. I have however sought in vain in this writer's great work, in the part that treats of the affairs of Ceylon and describes the periodical events in that island only to 1707,† for anything further regarding de Bevere.

There is no doubt, however, that he was the major of whom Loten makes mention as the grandfather of our artist. That the latter was named de Bevere, is probably in consequence of the often careless spelling of those days; but the difference may also be intentional on account of the illegitimate origin.‡

Perhaps the papers left by Loten and perused by Prof. P. J. Veth might have furnished some further light, both as regards the de Beveres and as regards the testator himself and his family. It is therefore doubly unfortunate that they were presumably considered by one or other of their possessors as of no value and destroyed.

When Prof. Veth consulted them they belonged to Mr. J. A. Grothe, who, as I am told by Mr. S. Muller, Fz., the national archivist at Utrecht, on several occasions presented the manuscripts, that he possessed to the Utrecht archives, the Academy

* This is incorrect, as will be seen by the quotation I give under Sec. III. The expedition was *to*, and not *against*, the "emperor of Candi."

† Mr. van Houten has been misled by the date erroneously continued at the top of the later pages of Valentyn's history. As a matter of fact, the affairs of Ceylon are chronicled (in a very summary manner, it is true) down to 1724 on p. 360.

‡ The former explanation is the more probable: Valentyn himself uses both forms.

Library, and other public institutions. After his death some family papers were also presented to the national archives, but the papers in question were—so Mr. Muller assured me—with neither one nor the other, and Mr. Grothe's son, Mr. Grothe van Schellach at Utrecht, did not know the documents. Even less has been the result of an inquiry, instituted by me, of the late Prof. P. J. Veth's son, Dr. K. J. Veth, and further by Mr. L. D. Petit, Conservator at the Academy Library at Leiden, in which are some of the papers left by Prof. Veth, and of Prof. de Goeije, who arranged the literary remains of the said scholar, but had not met with the required documents among them.

Regarding Joan Gideon Loten, on the other hand, I can, in the way of supplement, now relate considerably more, thanks to the help of Messrs. G. P. Rouffaer and P. A. M. Boele van Hensbroek, as well as the gentlemen already named, Mr. S. Muller, Fz., and especially Mr. Grothe van Schellach, who was able to draw therefor from family papers.

In the first place, I can by this means refer to the short biography, to be found on page 651 of vol. xi. of A. J. van der Aa's *Biografisch Woordenboek* (Haarlem, 1865), where, however, Loten's services as Governor of Macassar * are alone extolled, and in particular mention is made of a fine map in 19 sheets of Celebes, which he caused to be prepared by his bookkeeper Jean Michel Aubert.†

In the second place, one finds some details in the *Bijdragen van het Koninklijk Instituut van Taal-, Land- en Volkenkunde van Ned.-Indië* 4th series, vol. v. (1881), from the hand of P. J. B. C. Robidé van der Aa, in his paper "The Great Bantam Rising in the Middle of Last Century," where the important rôle filled in 1752 by Loten, at that time councillor extraordinary, as commissary sent to the Bantam court, is described, and a report from his hand printed; whilst in an appendix (pp. 49-53) the writer relates one thing and another further regarding Loten's career.

* 1741-50 (see *supra*).

† This map is mentioned by Robidé van der Aa (*u. i.*), who says that it is in the Bodel-Nyenhuys collection.

Utrecht was Loten's earlier place of residence.* From my papers I can also add to this that, as appears from a letter dated Colombo, 27th January 1756, treating of a consignment of natural curiosities, there then lived in Utrecht also a brother, Arnoud Loten, who also became burgomaster of this town, and died only in 1801, and in the female line was an ancestor of the present Grothe family.†

On the authority of Prof. Veth, van der Aa also adopts erroneously the year 1732 as that in which Loten was appointed fiscal at Samarang ("before his arrival at Batavia," says the relater) and on 24th August of the same was married. The information that both here forgot is to be found in the epitaph of Mrs. Loten, *née* van Beaumont, in the old Dutch church inside the fort ‡ at Colombo, to be found on plate 25 in the work cited by van der Aa himself, *Lapidarium Zeylanicum, being a Collection of Monumental Inscriptions of the Dutch Churches and Churchyards of Ceylon*, by L. Ludovici, Colombo, 1877.§ We there read that she was born on 13th November 1716 at the Cape of Good Hope, married 24th August 1733, and died 10th August (not 11th August, as Prof. Veth stated) 1755.

Van der Aa surmises that Mrs. Loten was a daughter of the independent fiscal Cornelis van Beaumont, who died at the Cape of Good Hope in 1724.|| According to the same

* But not his birthplace: see *infra*.

† See further regarding Arnoud Loten under Sec. III. According to Valentyn (i. 290), a "Josef Lothen, independent fiscal," commanded the return fleet from Java to Holland in 1721; and in the additional list of subscribers to Valentyn's great work (given at the end of vol. v. pt. 2) appears "Joseph Loten, lord of Bunnick and Vechten, Witte-vrouwen and Abstede, as also canon to the chapter of the cathedral at Utrecht," who evidently was a relative of Joan Gideon's.

‡ Wolvendaal church is *outside* the Colombo fort.

§ See also C. As. Soc. JI. xv. 235, xvii. 18.

|| Kornelis van Beaumont, under-merchant and *dispensier* at Colombo, appointed independent fiscal at the Cape of Good Hope 1712, and arrived there 1713 (Val. *Beschr. v. Bat.* iv. 383); held office 1712-24, when he died (Id. *Beschr. v. d. Kaap d. G. H.* 41). See also C. As. Soc. JI. xvii. 16, where van Beaumont's wife's name is given as Deliana Blesius, and she is said (? erroneously) to have died in Colombo on the same day as her daughter, Loten's wife. — (She is also confused with her sister, Johanna Gysberta.)

informant Loten made his later voyage to the Cape* wholly as a private individual, and also because an inheritance had fallen to his then deceased wife.†

With respect to the later dispute of Loten's with the East India Company regarding the deductions made in the repayment of the loan of 100,000 rixdollars, van der Aa, "after a careful perusal of the request," judges unfavourably of Loten's complaint and demand, and even says further that "Loten's actions and monetary concerns cannot perhaps in any respect stand the test of careful investigation." For our part, however, in like manner, after a careful perusal of the documents, we, as in truth Prof. Veth, do not regard Loten's demand as in any sense unreasonable, and consequently van der Aa's suspicion of his rectitude is not justified.

Returning now to Loten himself, I can, thanks to Mr. Grothe's communications, correct, and at the same time to a large extent supplement, Robidé van der Aa's statements.

He was born 16th May 1710 at Scadeshoeve, in the parish of Maartensdijk, and had as parents Jean Karel Loten, secretary of the Lekdijk Benedendams and steward of the convent of Marie Magdalena at Wijk-bij-Duurstede, and Arnoudina Maria Aerssen van Juchem.

The Lotens were of Flemish origin. In 1461 an ancestor appears as burgomaster of Aardenburg.

Mr. Grothe also informs me that Loten, while residing in England, was married a second time, on 4th July 1765, at Banstead in Surrey, namely, to Letitia Cotes, daughter of Digby Cotes and Elizabeth Bannister, who survived her husband and died 11th June 1810.‡

In the plate given in the work mentioned, of the tombstone of Mrs. Loten, appears also a representation of her arms,§

* In 1775-6 (see *supra*).

† Loten had then been ten years married to an English wife (see below).

‡ Regarding this second marriage see under Section III.

§ Cf. C. As. Soc. Jl. xv. 235 and 229. Owing to the ignorance of the lapidaries or of the artist, the van Beaumont arms are very faultily represented in the plates 16 and 25 of *Lapid. Zeyl.* For instance, in plate 16, the lion in the crest, which Mr. de Vos describes as issuant,

namely, a scutcheon divided into two halves longitudinally, in which in the right half on a golden field a green thistle-branch forming two shoots [*loten*][†]—the arms of the Lotens; and the left half divided into quarters, the uppermost displaying a rampant black lion on a golden (?) field and underneath a golden ship on a blue field—the arms of the van Beaumonts.

Some days before the death of Mrs. Loten there died in very early youth the only grandchild, also mentioned on the said tombstone, as Albert Anthonie Cornelis van der Brugghen. We see from this that at that time Loten's only child was also staying in Colombo, perhaps also her husband,* regarding whose identity van der Aa hazarded a guess, which seems to have been incorrect; since Mr. Grothe van Schellach wrote to me concerning this wife as follows:—"Armandina † Deliana Cornelia [the daughter of Loten], the date of whose birth is unknown to me, ‡ was married 19th July 1752, at Batavia, to Dirk Willem van der Brugghen, born at Bergen op Zoom, 4th February 1717, upper merchant and chief at Soerabaia, whence he returned home in 1758.§ He died at Utrecht, 7th October 1770, she at Batavia, 15th May 1756. They had two children."||

Besides the above-named daughter, who was his second child, Loten had by Anna Henriette van Beaumont two other children; the eldest was a daughter, born 16th October 1734, and soon died, on 30th April 1735; the third, a son, died an hour after birth.

is more like a lion rampant; while in plate 25 the lion, which in plate 16 is correctly shown as passant (not passant guardant—"leopardé"—as Mr. de Vos has it), is assuming a rampant attitude. The form of the ship also differs considerably in the two plates.

* There is no proof of this. Mrs. van der Brugghen may have been on a visit to her parents without her husband.

† This is evidently a misprint or misreading for *Arnoudina*, which was the name of Loten's mother.

‡ As Loten's first child was born 16th October 1734 we may, I think, safely place the birth of this second daughter in the latter part of 1735. This would make her barely 17 years old at the time of her marriage—about the same age at which her mother married Loten.

§ In the same ship as Loten probably.

|| Regarding these children see at end of Section III.

In later years * Loten returned from England to the fatherland, fixed his abode at Scadeshoeve—at least in the summer—and died, as appears from the register of deaths consulted by Mr. S. Muller, in the burgess rank, on 25th February 1789, at Utrecht, “at the Drift near the Wittevrouwenbrug.”

In conclusion, something further regarding the history of my collection of plates.

Robidé van der Aa had suggested 1790 as the probable year of Loten's death, referring to the *Kunst- en Letterbode* of 1790, p. 34 (should be vol. ii., p. 34). On consulting that work, one reads there under the short reports :—

“Haarlem. List of presents to the Dutch Society of Sciences since 25th May 1789 to 21st May 1790. For the room of natural curiosities. A collection of about 130 very fine drawings of mostly East Indian and rare birds, as also of some four-footed beasts, fish, crabs, sea-polyps, insects, and plants, by legacy of the late Mr. Joan Gideon Loten, in his lifetime former councillor of Netherlands India and Governor of Ceylon.”

At once surmising that this report referred to my own plates, I applied through the medium of Dr. Greshoff to Prof. Dr. J. Bosscha at Haarlem, secretary of the Dutch Society of Sciences, whereupon I received the following reply :—

“Here is what my investigations have yielded. In the minutes of the meeting of directors of 4th August the following is recorded :—

The president also communicated that Mr. J. Kol had informed the secretary under date Utrecht, 18th July last, that the late Mr. Joan Gideon Loten, in his lifetime former councillor of Netherlands India and Governor of Ceylon, by a codicil dated 13th October 1778 had engaged to have transferred to this Dutch Society of Sciences his collection of drawings and sketches made in East India, as these shall and are to be found in a large copper box † among his movables, on application for the said legacy, in exchange for a proper receipt in discharge of the informant as executor of the deceased's estate,—that on the same date, the secretary having been requested and qualified therefor, this transfer

* Apparently about 1783 (see under Section III.).

† See at end of Section III. regarding this legacy.

was carried out, and the said copper box with the said drawings and sketches, and various additional prints in sepia and several English prints of natural objects, were obtained by the secretary, and laid on the table for inspection, which was carried out and the informant thanked for his communication; it was also resolved to thank in the friendliest manner the said Mr. J. Kol in the name of the Society for his trouble in this matter, as also to offer to pay the expenses incurred therein with thanks, as is fair.

“Of this collection nothing is now to be found either in the library or in the archives. I imagine that the copper box together with its contents was in the collection of natural curiosities that the Society at that time possessed, but that was removed in 1866 (see Memorial of the 150th anniversary of the Dutch Society of Sciences, 1902, p. 28). On that occasion the copper box with plates was doubtless also given away, to whom or to what institution is no longer to be ascertained.”

This letter as well as the extract quoted from the old *Kunst. en Letterbode* fits in so wonderfully well with my collection, that at this moment I can entertain not a shadow of a doubt that it is the legacy of Mr. Loten to the Dutch Society. Only the vicissitudes of the plates between the year 1866, when the Society mentioned had its “great dispersal,” and the time when the firm of Nijhoff got them into their possession, which by my orders they bought for me on 13th February 1885, remains as yet a bit of unrecorded history. Mr. Boele van Hensbroek wrote to me: “They belonged to me, and formed part of a large lot of books, &c., that I had taken over from the late art dealer A. G. de Visser. Whence the latter had the drawings can no longer be traced.” Of the copper box spoken of there is at present even less of any trace to be discovered.

And here also for the moment my knowledge of the matter stops. Meanwhile I shall be indebted for all further references or information that anyone can send me regarding the principal persons here brought on the stage, or their adventures and employments.

SECTION III.

So far Mr. van Houten. To supplement the details given above regarding de Bevere and Loten and the paintings, I here add what further information I have been able to collect.

First, as to the artist and his family.

From Mr. F. H. de Vos of Galle I learn that Willem Hendrik de Bevere of Oosterwijk came out to East India as an ensign in 1688 by the ship *China*. Where he served during the first few years, and when he was promoted, I do not know,* but in 1696 he was in Amboina with the rank of lieutenant,† which position he held until 1702, when he became captain-lieutenant.‡ In this capacity he commanded an expedition against certain runaways in 1705.§ At the end of this year, or in 1706, as captain he left Amboina for Java to take part in the expedition against Soerapati, arriving by the ship *Schoondyk* at Japara on 23rd July ;|| and on 15th August we read of him as being present at a reception by the Depati of Soerabaja, to which he had brought the old prince of Madura.¶ Under date 20th August, Captain de Bevere is referred to as commanding a brigade ;** and under 23rd August we read that this brigade consisted of 723 men.†† On 4th September, Valentyn says, he accompanied Captain de Bevere to the quarters of Captain van der Horst, who had invited his brother officers and other guests to an entertainment, details of which

* Very likely these years were spent in Batavia, for which place Valentyn's lists of ensigns and lieutenants are very defective (see *Beschr. van Batavia* 417, 416). A relative, Gerard de Bevere, occupied positions of importance in Batavia at this time, being a councillor extraordinary of India, 1687-90 (Val. *Beschr. van Bat.* 372), advocate fiscal 1688 to May 1690 (ibid. 379), and president of aldermen 1688 to 13th May 1690 (ibid. 391). I have found no other references to him.

† Val. *Amhon. Zaaken* (vii.) 44 and 259.

‡ Id. 44, 35, and 27, where he appears in the list of chief officials for 1704.

§ Id. 261 and (vii.) 27, where, in the list for 1705, "left" is appended to his name.

|| Val. *Beschr. van Groot Java* 155. Valentyn accompanied this expedition as assistant chaplain.

¶ Ibid. 158, 159.

** Ibid. 162.

†† Ibid. 163.

are given.* On 11th September Commander Govart Knol, with the brigade of Bintang, de Bevere, and van der Horst, set out against the enemy, accompanied by Valentyn,† who in the following pages gives minute details of the expedition, de Bevere's name often appearing,‡ especially in connection with his unfortunate defeat and his subsequent courageous behaviour at the capture of Bangel on 16th October (both of which events have been referred to by Mr. van Houten above). From Valentyn's statements it would appear that de Bevere's conduct in attempting to justify his behaviour in connection with the former affair was not very straightforward.§ However, he seems to have succeeded ultimately in clearing himself, for, in detailing the events that took place in Java in 1708, Valentyn || says :—

In the meanwhile the trial of the affair of de Bevere at Batavia was finished, he, in consequence of his defence, acquitted, and not long afterwards sent as captain to Ceylon, where he remained some years, but in the end, having come back from an expedition to the emperor of Candi, was again at loggerheads, as we shall see more fully under the affairs of Ceylon.

When Valentyn came to describe the affairs of Ceylon he seems to have forgotten his promise, or to have changed his mind ; for he does not even mention de Bevere, nor does he say anything regarding the expedition which had such an unpleasant result for the captain. That the latter left Java for Ceylon towards the end of 1708 seems probable, though Valentyn does not give the date ; and it is possible that he went in one of the ships that sailed from Batavia in October conveying to Ceylon as a state prisoner the Pangerang Depati Anom, with his three sons, nineteen wives, and suite of fifty-two men.¶

While in Ceylon Captain de Bevere was in command of the militia in Colombo.** It was at this time that (as mentioned by Mr. van Houten above) he formed the liaison, the fruit of

* Ibid. 169.

† Ibid. 170.

‡ See 172, 174, 178, 179, 181, 182, 186, 187.

§ See 181, 192, 193, 197.

|| *Loc. cit.* 200.

¶ *Val. loc. cit.* 203.

** So Mr. F. H. de Vos informs me, without giving his authority.

which was the father of Loten's artist protegee.* What the name of Captain Willem Hendrik de Bevere's son was, we are not told by Loten. Mr. de Vos, however, tells me of a "David Willemsz de Bevere, of Batavia, an assistant O. I. C., who married (2) in Colombo, 15th January 1736, Elizabeth Andriessen of Trincomalee,"† and who, Mr. de Vos thinks, was a son of Captain de Bevere's. If this actually be the father of the artist, the latter may have been a child by the first wife,‡ whose name Mr. de Vos does not give.

With respect to the mysterious affair which involved the hot-headed captain in further trouble, I think that the following extract from the *Beknopte Historie van de Voornaamste Gebeurtenissen op Ceilon*§ may afford some light :—

In the beginning of the year 1714 an ambassador who had gone up with the usual yearly presents, and had been received very friendly at the court, was indiscreet and foolhardy enough, on retiring thence, to have recourse, contrary to all imagination, to unheard of grossnesses and conduct shameful to our nation, in consequence of which there was the greatest uneasiness in Colombo : nevertheless not the slightest harm came to him or to his suite, at which one could not help being surprised. On this account, in order to prevent the consequences of such illbred and improper behaviour, it was thought well at once to send an ola to the court and therein to offer apologies, with a promise that the ambassador's conduct should be rigorously punished, with which the court then appeared to be satisfied, since in this and the following year 1715 matters continued in peace.

Taking all things into consideration, I think there can be hardly any doubt that the ambassador here spoken of was Captain de Bevere,|| and that the "loggerheads" (*strubbelingen*) spoken of by Valentyn were the consequence of his

* Loten, as quoted by Mr. van Houten above, says that in 1755 "Major" de Bevere's son "seemed about 50 or 55." But, as Captain de Bevere did not arrive in Ceylon until the end of 1708, his son could not possibly have been more than 45 or 46 in 1755.

† Mr. de Vos adds the names of several descendants of this couple.

‡ What Loten says, however (*u. s.*), seems to disprove this.

§ See also C. As. Soc. JI. xi. 116, where, however, the translation is rather free.

|| An examination of the Dutch records in Colombo would probably settle the question.

outrageous conduct.* In any case he seems to have left Ceylon for Batavia in 1714 or 1715, for in the latter year, according to Valentyn,† he was one of the captains at the Rotterdam gate in Batavia, as well as captain of the castle and major for a while. In 1717, according to the same authority,‡ de Bevere received the permanent appointment of captain of the castle, a post which he held until 1719, when he died.§

That Captain de Bevere left behind him in Ceylon his mistress and child seems certain; and, judging by Loten's words quoted by Mr. van Houten above, it would appear that though brought up respectably and as a Christian, this child, on attaining adolescence and manhood, displayed no uncommon qualities to call for special mention, else Loten would surely have said something of them. Regarding this man and his talented son we shall probably never learn more than what Loten has told us.||

Let us now turn to Loten himself. As the events of his life recorded by Mr. van Houten in his two papers are set down in a somewhat haphazard manner, it may be as well to tabulate them here according to chronological sequence. They are as follows :—

1710	16 May	..	Loten born at Seadeshoeve.
1732	4 Jan.	..	L. sails as under merchant for East Indies.
..	Aug.	..	L. arrives at Batavia.
1733	10 July	..	L. appointed fiscal, Java's north coast.
..	24 Aug.	..	L. married at Batavia to Anna Henriett van Beaumont.
..	10 Sept.	..	L. leaves Batavia for Samarang.
..	29 Sept.	..	L. arrives at Samarang.
1734	16 Oct.	..	L.'s eldest child born.

* For which he had not the excuse that justified the behaviour of an earlier ambassador—a soldier to boot—Henricus van Bystervelt in 1671 (see C. As. Soc. JI. xi. 355–76, Knox *Hist. Rel.* 181).

† *Beschr. van Bat.* 415.

‡ *Ibid.* 414.

§ *Ibid.* That de Bevere does not appear to have been punished, but rather to have been promoted, need not surprise us: compare the case of Overschie and Thyssen in 1645 (see C. As. Soc. JI. xviii. 189 and 260 n. 146).

|| Unless, indeed, it be from the Wolvendaal church records and the Dutch archives in Colombo.

1735	30 April	..	L.'s eldest child dies.
1740	6-10 Nov.	..	L. makes excursion inland.
1741	—	..	L. returns to Batavia.
1744	2 Mar.	..	L. leaves Batavia for Macassar as Governor.
„	24 Mar.	..	L. arrives at Macassar as Governor.
[1747	Dec.]	..	L. appointed councillor extraordinary of N. I.
1750	[17 Oct.]	..	L. leaves Macassar for Batavia.
1752	[Mar.]	..	L. sent as commissary to Batavia.
[„	April	..	L. returns to Batavia.]
„	19 July	..	L.'s daughter married at Batavia to Dirk Willem van der Brugghen.
„	—	..	L. leaves Batavia for Ceylon as Governor.
„	30 Sept.	..	L. arrives at Colombo.
1754	24 Mar.	..	L.'s grandson born at Colombo.
[„	Oct.]	..	L. appointed councillor ordinary of India.
1755	30 July	..	L.'s grandson dies at Colombo.
„	10 Aug.	..	L.'s wife dies at Colombo.
1756	15 May	..	L.'s daughter dies at Batavia.
1757	18 Mar.	..	L. leaves Ceylon for Batavia.
1758	—	..	L. leaves Batavia for Holland.
„	—	..	L.'s son-in-law leaves Batavia for Holland.
„	June	..	L. arrives in Holland.
1763	—	..	L. visits France for health.
1765	4 July	..	L. married at Banstead to Letitia Cotes.
1770	7 Oct.	..	L.'s son-in-law dies at Utrecht.
1775	4 Nov.	..	L. leaves for Cape of Good Hope.
1776	17 Feb.	..	L. arrives at Cape of Good Hope.
1777	7 Mar.	..	L. leaves Cape of Good Hope for Holland.
„	13 June	..	L. arrives at Texel.
1778	13 Oct.	..	L. bequeaths paintings, &c., to Dutch Society of Sciences, Haarlem.
1789	25 Feb.	..	L. dies at Utrecht.
1810	11 June	..	L.'s widow dies.

It will have been noticed that Mr. van Houten gives no information regarding Loten's history from the time of his birth until his departure for the East Indies in his twenty-second year ; and I am unable to throw any light on this period of his life. Nor can I add to the details furnished by Mr. van Houten concerning Loten's career in the East, beyond those I have given in footnotes to his two papers. As regards the third and longest portion of his life, I can supply a few additional

facts, which are the disappointingly meagre result of the research I have made in all the sources that seemed likely to yield information.*

As we have seen, Loten left the East for good in 1758, arriving in Holland in June of that year. He was then in the prime of life, was possessed of considerable means, and had no family ties.† He was therefore able to devote his whole time to his favourite study of natural history, and to carry on correspondence on the subject with various European naturalists. What his immediate movements were, after his arrival in Holland, I cannot say ; but that he was in England in 1760 is certain.‡ In that year was published the second part of Edwards's *Gleanings of Natural History*, and in the list of subscribers to the work, prefixed to this part, appears the name of "John Gideon Loten, Esq."

The Royal Society, in recognition of the services that Loten had rendered to the cause of science, this same year (1760) conferred upon him the honour of their fellowship. His certificate,§ a copy of which I owe to the courtesy of Mr. Robt.

* The correspondence and memoirs of some of the men of science who lived in the latter half of the eighteenth century may possibly contain some mention of Loten.

† His two grandchildren accompanied their father.

‡ That he was in England in 1759 seems evident from the fact that some of Edwards's plates, painted from specimens belonging to Loten, are dated in that year (see further on).

§ It is signed by Professor Allamand, M. Maty, Th. Birch, Gowin Knight, and George Edwards. The last of these was the author of the books already mentioned and more fully dealt with below. The Rev. Thomas Birch was secretary of the Royal Society, 1752–85. Matthew Maty, a fellow-countryman of Loten's, was at this time an under-librarian in the British Museum (in 1772 principal librarian, in 1762 foreign secretary, and in 1765 principal secretary of the Royal Society). Gowin Knight was the first principal librarian of the British Museum, from its foundation in 1756 until his death in 1772. (See *Dict. of Nat. Biog.* regarding all four men.) Jean Nicolas Sébastien Allamand, a Swiss, was professor of philosophy and natural history at the university of Franeker in Friesland. He was elected a fellow of the Royal Society in 1746. His name is perpetuated in that of the genus of flowering creepers *Allamanda*. Evidently the above certificate was written by him. (See further regarding him in *Nouv. Biog. Gén.* ii.)

Harrison, Assistant Secretary of the Royal Society,* runs as follows :—

Monsieur Joan Gideon Loten, ancien Gouverneur de Ceylon, est un homme si distingué par sa naissance, par les emplois dont il a été revêtu, par son mérite et ses belles connoissances dans différentes parties de la Philosophie, qu' il ne peut que faire honneur à toute Société Littéraire qui le reconnoitra pour un de ces membres. J' ose dire en particulier que sa profonde estime pour la Société Royale de Londres et pour les excellens ouvrages de ceux qui la compose le rend bien digne d'être agrégé à cet Illustre Corps.

Translation.

Mr. Joan Gideon Loten, former Governor of Ceylon, is a man so distinguished by his birth, by the offices with which he has been invested, by his merit and his fine attainments in different branches of Philosophy, that he cannot but confer honour upon any literary society that shall recognize him as one of its members. I may say in particular that his profound esteem for the Royal Society of London and for the excellent works of those that compose it render him very worthy of being added to that illustrious body.

On 27th November Loten was balloted for and elected, and on 11th December was admitted as a Fellow of the Royal Society.†

It was doubtless at this time that Loten took up his residence at Fulham, as referred to by Mr. van Houten above ; though when that residence began, and how long it continued, I have not been able to discover.‡ In any case, it is certain that he spent a number of years in England,§ becoming almost

* Mr. Harrison has also made a search among the records of the Royal Society, but has found no further reference to Loten

† Loten's name appears for the first time in the " List of the Royal Society " for 1761, and (it should be noted) not among the " persons of other nations," but as " John Gideon Loten, Esq."

‡ Mr. C. J. Feret's elaborate work, *Fulham Old and New* (1900), contains no reference to Loten.

§ In 1763, as Mr. van Houten mentions, he visited France for the benefit of his health.

naturalized,* learning to use the English language like his mother tongue, and marrying an English wife. This last fact Mr. van Houten has mentioned above; and it is recorded in the following notice, which I copy from the *Gentleman's Magazine* for 1765 (vol. xxx. p. 346):—

July 4. John Gideon Loten of New Burlington-str. Esq;— to Miss Coates, neice [*sic*] to the countess of Northington.

Taking the above with what Mr. van Houten tells us, it seems that Loten was married at Banstead in Surrey (the residence, apparently, of his bride's widowed mother) to Lettice Cotes,† whose father, the Rev. Dr. Digby Cotes,‡ was connected with the peerage; and further, that Loten had taken a house in New Burlington Street, in the heart of London, as a permanent residence. That this was the case is evident from the following notice of the death of Loten's widow forty-five years later§ (*Gent. Mag.* lxxx. (1810) 672):—

June 11. In New Burlington-street, the widow of John Gideon Loten, esq. formerly Governor of Ceylon, and grand-daughter to William Lord Digby.

That this marriage was childless is certain; but of Loten's domestic life I know almost nothing. A somewhat cursory

* Notice how, in the authorities I quote, his name is always given in English form. I cannot help thinking that Loten had some reason other than his love of science that led him to reside in England. The relations of the English and Dutch in the East were at this period somewhat strained (see Willson's *Ledger and Sword* ii. 140-3); and Loten's pro-English likings could hardly have tended to increase the affection of the N. E. I. Co. towards him.

† Not Letitia, as Mr. van Houten has it. Lettice was a Digby family name.

‡ In the notice of his death, 11th January 1745, in the *Gent. Mag.* xv. 52, he is thus described:—"Rev. Dr Digby Coates, rector of Coleshill, Warwickshire, prebendary of Litchfield, and principal of Magdalen Hall, Oxford." For further particulars regarding him, others of the Cotes (or Coates) family, their connection with the Digby family, and Coleshill, see Foster's *Alumni Oxonienses*, Early Series i. 332, Later Series i. 301; *Gent. Mag.* lxxiii. (1793) 283-4; Dugdale's *Antiquities of Warwickshire* (1733), 1006-20.

§ And just over a hundred years after Loten's birth. When the second Mrs. Loten was born, I have not discovered.

perusal of Loten's lengthy will* and that of his widow at Somerset House has furnished me with some interesting details; † and were the former document copied and printed‡ it would throw a good deal of light upon Loten's family history. I find, among other particulars, that Loten had in his household a faithful female freed slave named Sity, a native of Celebes. It would appear, judging from the dates of the various codicils, that Loten's residence in England continued until about 1781 or 1782,§ and that after that date he settled down in or near Utrecht, where, as Mr. van Houten has stated, his brother Arnoud was burgomaster,|| and his two grandchildren¶ probably lived. That Mrs. Loten also removed to Holland is probable, though I have no proof of it; but that she visited Utrecht at some period we know from her will.** After her husband's death, at any rate, we may be sure that she once more took up her abode in New Burlington Street, where, as we have seen, she died. Her body was doubtless buried, as in her will she desires it to be, in the chancel of the church at Coleshill, of which her father had for so many years been

* With the various codicils, it covers some 16 folio pages. The will itself is dated in 1767, the codicils bear various dates down to almost the year of Loten's death, the later ones being translations from the Dutch.

† Unfortunately, the notes I had made were impounded by a soulless official on the ground that they were "revenue": hence I have to rely on my memory.

‡ Mrs. Loten's will cannot be copied, as it falls within the prescribed period.

§ Compare what Forster says, in the extract quoted below. One incident of Loten's later years, recorded by Robidé van der Aa in the work quoted above, Mr. van Houten has omitted to mention, namely, that in 1775 Loten was in correspondence with the noted hydrographer James Dalrymple regarding a map of Celebes (doubtless the one in 19 sheets by Jean Michel Aubert spoken of above).

|| This fact is also mentioned in Loten's will, from which, moreover, we learn that Arnoud had a son and a daughter, the former being a namesake of Loten's.

¶ These, a son and a daughter of Dirk Willem van der Bruggen, are referred to by Loten in his will. The daughter married (if my memory is correct) a Mr. Wilmersdorf, from whom she afterwards separated.

** In which she leaves valuable rings to two ladies who were kind to her in a serious illness that she had when in Utrecht.

vicar, and where, in all probability, she was born. That Loten was possessed of considerable property, in Holland as well as in England, is amply proved by the many and valuable bequests* devised by him in his will and its half-dozen codicils.

Now as to Loten's collection of paintings. I have said above that the second part of Edwards's *Gleanings of Natural History*, in which Loten's name appears as a subscriber, was published in 1760. The third and last part was issued in 1764; and in the list of subscribers we find "John Gideon Loten, Esq; F.R.S. 2 Books." But an examination of the volume shows us that Loten had done more than subscribe to the work; for at page 229,† in chap. cvi., which describes plate 316, "The Great Black Cockatoo,"‡ we read:—

This figure was taken from a drawing§ done from the life, of its natural size, by the order of John Gideon Loten, Esq; late Governor in the Island of Ceylon, and other Dutch settlements in the East Indies. I shall take this earliest opportunity gratefully to acknowledge the high obligations I owe to this worthy and curious|| Gentleman, as he hath contributed every thing in his power to assist me in the completion of this work, by furnishing me with many new and curious natural specimens in high preservation, as well as curious drawings after nature. He has also greatly obliged the curious¶ of these kingdoms, by presenting to the British Museum a very large, curious, and valuable collection of original Drawings, in water-colours, of the most curious Animals, Vegetables, &c. the productions of India; together with many specimens of the natural productions, well preserved; all which have been helps to me.

* Among these are some Ceylon "curios." A valuable collection of shells made by him Mrs. Loten bequeathed to his nephew or grandson (I am not sure which). Loten also had a number of valuable books, which he left by his will to one or other of these. As regards his natural history paintings, see further on.

† The pagination is continued from the previous parts, this part beginning with p. 221.

‡ This plate is dated 15th October 1761. (The plates, it will be seen, are arranged scientifically, not chronologically.)

§ See what is stated below in the description of plate 338.

|| This word has here one of its obsolete meanings—studious, diligent, or exact.

¶ That is, connoisseurs.

Again, on pp. 237-8, chap. cxi., describing plate 321, "The Green Pye of the Isle of Ceylon,"* we read :—

This bird was brought, with many others, from the East Indies, by John Gideon Loten, Esq; F.R.S. late Governor of Ceylon, &c. who presented them to the British Museum, where they now remain.

On p. 244, chap. cxiv., describing plate 324, "The Short-tailed Pye,"† it is stated :—

The bird here figured and described was brought by Governor Loten from the Island of Ceylon, and is deposited in the British Museum.

On pp. 245-6, chap. cxv., describing plate 325, "The Crested Long-tailed Pye,"‡ we are told :—

This curious bird was brought from the Island of Ceylon by my worthy friend John Gideon Loten, Esq; and is now preserved in the British Museum.

Yet again, on pp. 247-8, chap. cxvi., in which is described plate 326, "The Blue Jay from the East Indies,"§ it is said :—

The subject from which I draw my figure was brought from Ceylon by John Gideon Loten, Esq; and is now preserved in the British Museum.

Then, on pp. 269-70, chap. cxxviii., describing plate 338, "The Great Crowned Indian Pigeon,"|| Edwards says :—

This Bird, and that figured Pla. 316, are all that have been figured from drawings in these last fifty plates of my work : but as they were new to me, and the testimony of their authenticity most undoubted, I was glad of an opportunity to engrave them. The original is one of those that Governor Loten before-mentioned caused to be drawn from the life in India, and is now deposited, with many others brought from thence, in the British Museum. Mr. Loten brought several of them alive from India,¶ and presented them to the late Princess Royal of Great Britain, Dowager Princess of Orange, &c.

* This plate is dated 1st October 1759.

† Plate dated 6th October 1759. Cf. Loten's remarks on this bird, quoted by Mr. van Houten in his first paper.

‡ Plate dated 4th April 1760. It bears a reference to Knox's *Historical Relation*, p. 27, and in the letterpress the passage is quoted from Knox's work.

§ Plate dated 20th September 1759.

|| Plate dated 8th October 1761.

¶ See the statement in Mr. van Houten's first paper.

On pp. 282–3, chap. cxxxv., is a description of plate 345, “The Hoopoe,”* in which we read:—

It is an Insect-eater, and is found (perhaps in winter only) in Ceylon in the East Indies. I have seen a very exact drawing of it, as to size, shape, and colour, done from the life in the East Indies by the procurement of John Gideon Loten, Esq; F.R.S. late Governor of the Island of Ceylon.

Again, on pp. 285–7, chap. cxxxvii., plate 347, “The Red-breasted Green Creeper,” &c.,† is described, and we are told that—

Fig. 1 was brought from the Cape of Good Hope by Governor Loten, and is now lodged in the British Museum.

Finally, on pp. 299–300, chap. clxiv., describing plate 354, “The Little Sparrow, and the Wax-bill,”‡ it is stated:—

The Wax-bill was brought from the East Indies by John Gideon Loten, Esq; F.R.S.

I have quoted these extracts for two reasons. In the first place, they prove that Mr. van Houten’s assertion, that Loten’s plates “did frequent service for those in the well-known work of Edwards, *Gleanings of Natural History*,” is incorrect; since Edwards himself states distinctly that he used only *two* of Loten’s (really de Bevere’s) drawings for his book, the other six plates being drawn from specimens in Loten’s collection. But I have made these quotations chiefly to draw attention to the statement in the first extract, which is repeated in briefer form in most of the other passages, to the effect that Loten had presented to the British Museum§ “a very large, curious, and valuable collection of original Drawings, in water-colours, of the most curious Animals, Vegetables, &c. the productions of India; together with many specimens of the natural productions, well preserved.” I have made inquiries in various departments of the British Museum, and searched contemporary records, printed and manuscript,

* Plate dated 1st September 1759. It is not copied from a Ceylon specimen.

† Plate dated 29th December 1760.

‡ Plate dated 27th April 1761.

§ The British Museum had been opened only a few years before (in 1759) in Montague House.

in the libraries there, but can find no trace, nor even a mention, of any such collection.* I cannot but think, therefore, that Edwards was under some misapprehension regarding the collection, which may have been placed by the owner in the British Museum on loan temporarily. In any case, we shall find that many of Loten's drawings were utilized for works later than Edwards's; and from the details given by Mr. van Houten it seems absolutely certain that the collection of paintings of which he is the fortunate possessor is the very same as that referred to by Edwards.

Edwards died in 1773; and in 1776 appeared a work intended, evidently, as a supplement to his two books, but very inferior to them in the execution of the plates.† This was the *New Illustrations of Zoology*, by Peter Brown,‡ who in his preface says:—

Several plates are copied from the elegant Drawings, generously communicated to me by Gideon Loten Esq; and originally finished under his own inspection from living subjects, during his residence in the Islands of Java and Ceylon, of the latter of which he has been Governor for a considerable time.

To this is appended the following footnote:—

A Certificate in Mr Loten's own hand-writing, declaring the Plates faithful copies of his valuable Drawings, is in the hands of Mr Benjamin White, Fleet-street, for the Inspection of such Persons who should like to be convinced of their Authenticity.

* Nor has a search instituted at the Natural History Museum at South Kensington proved any more successful, as Dr. Bowdler Sharpe kindly informs me.

† In his preface Brown speaks of his "feeble efforts;" but this may be mock modesty. Compare Legge's disparaging remarks quoted in the footnote at the end of Mr. van Houten's first paper.

‡ Pennant, in his *Literary Life* (25), says:—"In this year [1776] Peter Brown, a Dane by birth, and a very neat limner, published his illustrations of natural history in large quarto, with L. plates. At my recommendation, Mr. Loten lent to him the greatest part of the drawings to be engraven, being of birds painted in India. I patronized Brown, drew up the greatest part of the description for him, but had not the least concern in the preface." (The meaning of the last clause is, that Pennant is spoken of in flattering terms in the preface.) In his *Catalogue of My Works* (1786) Pennant gives the same facts in briefer form.

On p. 42 Brown speaks of "my worthy Patron John Gideon Loten, Esq.;" and from his statements throughout the work we find that in all 20 plates* are copies made from Loten's (de Bevere's) drawings, the majority being representations of Ceylon birds.†

Seven years after the appearance of Brown's book there was published, in 1781, at Halle in Germany, a folio volume by the eminent naturalist and traveller, Johann Reinhold Forster, bearing the title *Indische Zoologie*, and containing fifteen coloured plates, with detailed descriptions in German and Latin, of birds, &c.‡ From the preface I translate the following passages:—

Mr. Gideon Loten, who loved to investigate nature, occupied himself much therein, and with much assiduity also learnt the art of depicting objects of nature; when he was appointed by the Dutch East India Company Governor of the island of Ceylon he found in this island a large field for investigating the secrets of nature, and he applied himself thereto with great zeal and extraordinary diligence, as often as his incumbent public duties permitted him. He instructed several slaves§ himself in the art of drawing; and caused to be painted by them various new and to naturalists unknown Ceylon animals. After a laudably conducted administration he returned to Europe, and brought with him also all the beautiful pictures of animals. He afterwards married a

* Some of these are dated 1774 and 1775.

† The birds copied from Loten's drawings are as follows (all being Ceylon unless otherwise stated):—Brown Hawk, Spotted Curucui, Red-crowned Barbet, Olive-coloured Warbler, Yellow-cheeked Barbet, Ceylon Black-cap, Javan Partridge, Purple Pigeon (Java), Pompadore Pigeon, Yellow-faced Pigeon, Yellow-crowned Thrush (Ceylon and Java), Yellow-vented Fly-catcher (Java), Red-vented Warbler, Yellow-breasted Fly-catcher, Green Warbler, Pink-coloured Warbler, Green Wagtail, Rail (two plates). One Ceylon bird, the Great Ceylonese Eared Owl, is not said to be copied from a plate of Loten's; but, as the latter's name is mentioned in connection with it, we may infer that it also is taken from a painting in Loten's collection.

‡ A second edition was issued in 1795, containing some additional matter, but the plates and descriptions being identical.

§ This is probably a misapprehension. As far as we know, de Bevere was the only person employed by Loten in the execution of his paintings, and he was certainly not a "slave." (Compare, however, Pennant's statement quoted in the footnote below.)

British lady, and was wont to live many months and indeed whole years in England.

Baronet Joseph Banks, the present president of the Royal Society of Sciences in London,* saw these pictures with Mr. Loten, and with the permission of the owner caused several of them to be copied. Soon afterwards however he resolved, by the advice of his friend Mr. Thomas Pennant, with the concurrence of Mr. Loten, to have a selection of these pictures well engraved in copper at their own joint expense. This was a singularly fortunate occurrence, for when Mr. Loten subsequently sent these paintings by ship to Holland, the ship was wrecked, and all the paintings were lost.

Fifteen copperplates had already been engraved, and twelve of them described by Mr. Pennant from Mr. Loten's written notes. when Mr. Banks in the year 1768 left for the South Seas, and began with Captain Cook the voyage round the world. Owing to my presence in England I was commissioned to translate Mr. Pennant's descriptions into French, which commission I undertook with much readiness and great care. Only as Mr. Pennant trusted an illiterate unknown French teacher more than me, the French, which was full of errors, was printed in England to the first twelve copperplates. After Mr. Banks had returned from his long voyage, he with Messrs. Loten and Pennant presented me, for the trouble I had had over the translation, with the ownership of the copperplates, together with the descriptions of them.

The statements made by Forster in the above extract are largely borne out by Pennant, who, in the "advertisement"† prefixed to the second edition (1790) of his *Indian Zoology*, says :—

This work, or rather fragment, was begun in the year 1769.‡ The descriptive part fell to my share : the expense of the plates was divided between Mr. Banks, now Sir Joseph Banks, Baronet ;

* Banks was chosen as president of the Royal Society in 1778, and was created a baronet in 1781.

† Dated 1st March, 1791, showing that the work was published later than the title-page (an engraved one by Mazell) states. This is confirmed by what Pennant himself says in his *Lit. Life* p. 40.

‡ It must have been in the early part of 1768 (see Forster's statement *supra*). In his *Catalogue of My Works* (1786) Pennant says : " In 1761, my *Indian Zoology* in folio appeared." (Then follow some of the details given above.) The date here given is, however, an obvious error, since, in his *Lit. Life* (9-10) Pennant distinctly assigns the work to 1769.

John Gideon Loten, Esq; a governor in Ceylon; and myself. Twelve only were engraved and published: soon after which the undertaking appeared so arduous that the design was given over. It would be injustice to Mr. Loten not to say that the etchings are taken from his fine collection of drawings made in India: for he alleviated the cares of life with the delicious pursuits of the study of nature. I prevailed [*sic*] on my two friends to unite with me in presenting the learned John Reinhold Forster with the plates. I also bestowed on him three others engraven at my own expense, before the work was dropped. These were never published in England; but when Dr. Forster left our island, he took the whole with him, and in 1781 printed, at Halle, in Saxony, an edition very highly improved, and translated into Latin and German....

Though neither Pennant nor Forster states the fact, the engraver of the fifteen plates* above spoken of was Peter Mazell;† and it was in the execution of these that this man played such pranks with the original drawings lent by Loten

He also says:—"I was induced to prefer that [zoology] of India from my acquaintance with John Gideon Loten, esq. who had long been a governor in more than one of the Dutch islands in the Indian ocean, and with a laudable zeal had employed several most accurate artists in delineating, on the spot, the birds and other subjects of natural history. He offered to me the use of them in a manner that showed his liberal turn." (Then follow details similar to those given above.) Pennant rightly calls the first edition a "fragment," since it has no title-page or preface, and ends abruptly at p. 14.

* They are as follows:—i. The Long-tailed Squirrel; ii. Black and White Falcon; iii. The Little Horn Owl; iv. The Red Wood-pecker; v. The Faciated Couroucou; vi. The red-headed Cuckoo; vii. The black-capped Pigeon; viii. The Tailor Bird; ix. The red-tailed Water-Hen; x. The white-headed Ibis; xi. The black-backed Goose; xii. The black-bellied Anhinga; xiii. Spotted-billed Duck, The Tiger Shark, and The Ceylon Wrasse; xiv. Double-spurred Partridge; xv. Flammeous Fly-catcher. All of these are from Ceylon specimens, except iv. and vii.

† Bryan's *Diet. of Painters and Engravers* (new ed. by G. C. Williams, 1904) iii. 309 says:—"Mazell, Peter, an English engraver who flourished in the second part of the 18th century and worked for Pennant and Boydell, and all the engravings in Cordiner's 'Ruins and Romantic Prospects in North Britain' (1792), are by him." Pennant in his *Literary Life* (3), speaking of his *British Zoology* (1761), says of the plates in that work: "They were all engraven by Mr. Peter Mazel, now living, of whose skill and integrity I had always occasion to speak well."

as to call forth the latter's wrathful comments quoted by Mr. van Houten in his first paper.*

But what are we to think of Forster's assertion, that "when Mr. Loten subsequently sent these paintings by ship to Holland, the ship was wrecked and all the paintings were lost"? I cannot explain it; but that Loten's collection of natural history paintings was *not* lost, at sea or on land, is demonstrated by the facts mentioned by Mr. van Houten, that, by a codicil to his will, dated 13th October 1778, he bequeathed the whole collection to the Dutch Society of Sciences at Haarlem, and that after his decease in 1789 this body took possession of them. I have read the clause in the codicil in question, and there can be no doubt in the matter. The paintings are there stated to be in "a flat copper box," which the testator requests to be placed inside a wooden case for the better preservation of the valuable contents. The action of the Haarlem Society of Sciences in parting with such a valuable gift is strange, but is not without parallel in the history of other public institutions. Its loss, however, has been Mr. van Houten's gain, and he is to be congratulated on his acquisition, which he evidently appreciates; while a debt of gratitude is due to him for collecting and publishing the interesting facts connected with these paintings set forth in his two papers.

D. F.

Memorandum by Mr. R. G. ANTHONISZ, Ceylon
Government Archivist.

As a considerable portion of the paper relates to the personal history of two men who were closely associated with Ceylon, I have been at some pains to supplement from materials at hand here the information that has been afforded by it. I have thus, I believe, cleared away one or two doubtful points which Mr. Ferguson confesses to be unable to further elucidate, and to have corrected some trifling and pardonable errors.

* This is proved by the fact that the remarks quoted by Mr. van Houten occur on the drawings of the Tailor Bird and the (Little Horn ?) Owl, which form plates viii. and iii. in Pennant's *Indian Zoology*.

First, as regards the artist de Bevere, I have had no difficulty in identifying him as Peter de Bevere, son of David Willemsz de Bevere, an *assistant* in the Civil Service of the Dutch East India Company. The father, David Willemsz de Bevere, was born in Batavia, whence he appears to have come over to Ceylon some time previous to 2nd March 1721. On that date he married, at Colombo, for the first time, Christina de Kelcq, natural daughter of Willem de Kelcq (or Kelk), master sailmaker, by one Anna Coere, who, to judge from her name, must have been of Portuguese descent. The only issue of this marriage was the artist Pieter de Bevere, who was baptized at Colombo on the 20th September 1722, with the names Pieter Cornelis. David Willemsz de Bevere afterwards made a second marriage, by which he left several other children. The record of Pieter de Bevere's appointments in the Company's service is as follows:—

1743, appointed Assistant Land Surveyor on 10 guilders per month.

1748, advanced to 16 guilders.

1754, advanced to 24 guilders.

1757, advanced to 30 guilders.

All these promotions were in the usual order except the last, in which he obtains the status and the salary corresponding to that of a *Boekhouder* in the Civil Service before the expiration of his former bond, an indication, very probably, of the patronage he was under. It was in this last year that he is said to have accompanied Governor Loten to Batavia. I am sorry I have failed to get any further trace of him in the records; but sufficient presumptive evidence of his return to Ceylon is, I think, afforded by an old book which came into my possession accidentally some fifteen years ago. It contains studies in figure drawing from designs by the old Dutch artist Abraham Bloemart, and appears to have at one time been the property of Pieter de Bevere; because, inscribed in ink, in a neat and elegant handwriting, on several pages of the book, occur the words: "Van Pieter de Bevere, Batavia den 10 Maart 1758."* There is also a later endorsement: "Den

* "Belongs to Pieter de Bevere, Batavia, 10th March 1758."

Eersten April 1799 gekogt door J. C. Hollebeek.”* This Hollebeek, it is known, was a resident at Galle about a hundred years ago. The presence of the book in Ceylon seems to me to be *prima facie* proof of the fact that the artist had returned here and had brought the book with him ; although, I admit, there is also room for other theories more remote, as, for instance, of its having come here with his effects after his death. The evidence afforded by this book is, however, not merely confined to the point I have referred to. It would seem to give us further glimpses into the life and occupation of the artist. As the studies in the book are all of the human figure in its various parts and aspects, they must have provided him with exercise in figure drawing and painting ; and it is, I think, reasonable to suppose that his profession as an artist was not limited to the delineation of natural history objects, such as those he designed for his patron ; but that he must also have devoted his time to drawing and painting the “human form divine.” It is very probable that he was a portrait painter.

I come now to the subject of the grandfather—the Major de Bevere referred to by Governor Loten. That this was the Captain Willem Hendrik de Bevere who figured in Ceylon history in the first and second decades of the eighteenth century is, I think, more than probable. He might very well have been the father of David Willemsz (*i.e.*, Willem’s son) de Bevere and have brought over his son with him from Batavia, as the particulars I have quoted from the Marriage Register are quite in agreement with this supposition and also with the ages which Loten assigns to his artist protégé and his father. That the father was born in Ceylon is, I think, clearly disproved, and when Governor Loten, in later years, possibly when in England, speaks of him as “a natural son of Major de Bevere by a Cingalese or black Portuguese woman,” he is not quite correct. Major (or Captain) de Bevere had, as far as we know, never been in Ceylon before 1708, and his son, born in Batavia, could not have had a Cingalese or black Portuguese for his mother ; although it is not impossible that the woman

* “On the 1st April, 1799, bought by J. C. Hollebeek.”

was a native of the Malay Islands. When, again, Loten describes the artist as "the untaught Christian Cingalese" he is either positively wrong or he uses these words in a sense which requires some explanation. It must be remembered that Loten, though by this time sufficiently familiar with English to use it with freedom, must still have been ignorant of some of those nice distinctions which only a native or a lifelong student could be expected to know. By "untaught" he possibly meant "self-taught," and in calling Pieter de Bevere a "Cingalese," he most likely meant a Ceylonese, in the sense of one born in the Island. In the classification officially recognized in Ceylon during the Dutch rule he would, I think, have been rightly described as a *mixties*. To return to Captain Willem Hendrik de Bevere. The passage which Mr. Ferguson quotes from the *Beknopte Historie* undoubtedly refers to him. I find that on the 14th September 1708 he took his seat for the first time at the Political Council as Chief of the Military at Colombo, and occupied it till the 23rd January 1714. On the 9th September 1713 the Council unanimously elected him Ambassador to the Kandyan Court, and the Embassy soon after set out with the usual pomp and ceremony. Nothing untoward appears to have occurred in the journey upcountry. The conduct, both of the Ambassador and of his retinue, was everything to be desired, and the reception at Kandy was most gracious. But de Bevere is said to have taken umbrage at the quality of the return gifts which the King presented to the Embassy. He looked upon these as of too little value and unworthy his position and dignity. In the rancour created in his mind by this, which he looked upon as an insult and indignity, he appears to have behaved in a most rash, if not insane, manner. When, immediately after the audience with the King, the royal repast was served out according to the custom of the country, he would not so much as touch or taste any of the dishes which were presented to him, but, in the most offensive manner, ordered them to be given to his slaves to eat. And the royal gifts, which he was bound to convey with due ceremony, covering them with a white cloth, he treated with great disrespect and contempt by tying them up at the foot end of his palanquin. Nor did he

treat with any greater consideration the courtiers whom His Majesty appointed to accompany him on his return journey. These he insulted and abused, calling them scoundrels and rascals, and their priest, or *tangataar*, who was also in the company, he mocked and mimicked in the most irreverent manner. Not content with all this, he rushed after one of the *coraals* and some of the other chiefs, brandishing a cane, with which he threatened to flog and chastise them. The first intimation which the Governor and Council at Colombo received of these doings was from an ola dispatched by the Interpreter Mudaliyar, Don Paulo Dias Gunaretna, who accompanied the Embassy. The Council, full of concern as to the result which these rash proceedings of their accredited ambassador would have on the friendly relations then subsisting between the Court and the Dutch Government, decided to place de Bevere under arrest as soon as he should arrive at the capital, and also to forward to the Kandyan Court an ola dispatch tendering apologies. In the meantime de Bevere was deprived of his seat in Council and of his local command in the army, while it was decided to dispatch him to Batavia by the vessel then ready to sail, so that he might be dealt with for his conduct by the Supreme Government of India. Of the further history of Captain de Bevere the Ceylon records are, of course, silent.

Of Governor Loten's personal history very little beyond what has been stated could be gathered from the records. His residence in the Island was limited to five years, and the diaries for these years are unfortunately missing, while the Resolutions of the Political Council deal for the most part with purely official matters. With reference to Loten's son-in-law, Dirk Willem van der Bruggen, it may be mentioned that he not only accompanied the Governor to Ceylon in the *Giesenburg*, but served in Ceylon for about four years. On the same day that Governor Loten's letters patent were read in Council and he assumed the Government (30th September 1752), van der Bruggen was introduced to the Political Council and took his seat as a member of it. At the next meeting of Council, 9th October 1752, he submitted an application for a passage in the homeward-bound vessel for his son, Jacob

Willem van der Bruggen, evidently a son by a previous marriage. After March 1756 his name disappears from the records, and as his wife (Loten's daughter) died at Batavia on the 15th May 1756, it is most likely that about that time he accompanied her there.

I have examined the impaled arms on Mrs. Loten's tombstone at Wolvendaal church, and also the arms on that of Jonkheer François van Beaumont depicted on page 16 of *Lapidarium Zeylanicum*. The heraldic tinctures not being denoted on either of these stones by the conventional lines and dots used for the purpose, I presume Mr. van Houten obtained the tinctures he gives from some other source. The reproductions in the *Lap. Zeyl.* are not very accurate, but yet they cannot be said to be seriously at fault. The lion in the upper half of the sinister impalement on the Loten tombstone and in the arms of François van Beaumont certainly vary. There is an apparent inaccuracy in both cases, because in neither of them is the attitude of the animal in accordance with any prescribed heraldic form. Comparing the two and making allowance for the ignorance of the engraver, it would seem that either the lion rampant or the lion passant (not guardant) was intended. This is further proved by the crest over the latter shield, which should be properly described as a demi-lion rampant. I attach no importance to the variance in the form of the ship in the two van Beaumont shields. A certain amount of latitude is allowed in depicting from heraldic word blazons such charges as these, and the ship in both cases may be taken to represent the same charge. There being really no doubt that Mrs. Loten belonged to the same family as the young nobleman whose death is recorded in the tombstone on page 16 of *Lap. Zeyl.*, it would be interesting to know what relationship he bore to Cornelis van Beaumont, the father of Mrs. Loten. They appear to have been contemporaries.

There is only one other point upon which I should wish to touch, and that is, the reference to the Upper Merchant and Chief Administrator Noël Anthony Lebeck, with whom Governor Loten is said to have "experienced great difficulties." The Chief Administrator (Hoofd Administrateur), it may be mentioned, was the highest official next to the Governor at the

Council Board, that is, excepting the Commandeurs of Jaffna and Galle, who, when present, took precedence of all the other members. The strained relations between Loten and Lebeck would appear to have begun from the very moment of Loten's landing in Colombo. When the *Giesenburg* with the Governor on board arrived at the Colombo roads on the 30th September 1752, it is said that, upon Lebeck's proposal, the castle guns, instead of, in the first instance, opening the salute with the usual discharge, were made to await and to answer the salute fired from the ship. Again, Lebeck, it is stated, objected to the temporary suspension of the state mourning which was then worn for the late Prince of Orange. William IV., when this was suggested as a compliment to the incoming Governor. Whether in these matters he had acted in good faith or with the determined intention of offering a slight to the Governor, it is clear that Loten was not a little put out by the circumstance. What private explanations or recriminations passed between the Governor and the Hoofd Administrateur do not appear, but that a good deal of rancour existed between them throughout their intercourse with each other is abundantly manifest. Yet the smouldering fire did not burst forth till nearly four years had gone by. Accumulated charges were then brought against Lebeck, among which may be mentioned (1) the failure to forward rice to Trincomalee, where it was urgently wanted for the garrison and the establishment, (2) not having the cinnamon intended for export properly packed in bags. (3) the excessive expenditure of 1,000 guilders in the repairs of the Rotterdam Bastion of the Colombo fortifications, and (4) the taking of every opportunity to wilfully mislead the Governor, whereby he was led to commit several errors of administration. Lebeck, who appears to have considered himself very much ill-used, and who looked upon the action taken against him in the light of a persecution, showed anything but a submissive spirit under these proceedings. When pressed very hard in the Council on one occasion he burst forth with the words: "I shall now risk everything, yea, everything, even if it be my life."* When charged by the

* "Nu sal ik er alles aanwaagen, ja ik sal er alles al wat het myn leven aanwaagen."

Governor with having written against him to the Government of India, he retorted: "Yes, I wrote concerning you last year to Batavia and also to the fatherland, and I shall do so again. You may be sure I will not lie still;"* and he added, "I have had much greater enemies than you from whom I have escaped, and, mark you, I shall with God's help resist you also and get off free."† On the 26th April 1756 the Council, on the proposition of the Governor, suspended him from office, when he put in the following protest: "I protest against this temporary suspension from office in the most respectful manner, chiefly on the ground that I have not yet replied to all the charges brought against me by His Excellency, nor have I been heard thereon. I request also that copies of the written charges brought against me may be furnished to me, with all the papers relating thereto placed on the table this day, and that this protest may be duly entered in the proceedings." The matter eventually went before the Council of India, and although I have not been able to trace any record of the fiat pronounced in the case by the Supreme Government of India, there is no doubt that, as a consequence of his spirited conduct, Lebeck was, for several years, superseded by Abraham Samlant as Hoofd Administrateur, and it was only on Anthony Mooyart's retirement from the Commandeurship of Jaffnapatam in 1767 that he regained the seniority which he appears to have temporarily lost.

22nd February 1907.

R. G. ANTHONISZ.

* "Ja, ik heb voorleden jaar over u geschreven na Batavia en ook na 't Vaderland, en ik zal het nu weder doen, u kund verzekerd zyn dat ik niet stil zit."

† "Ik heb zoo veel groter vyanden gehad waar van ik my wel verlost, zie, en zal het N. B. door Gods hulp tegens u ook wel houden en my redden."

Memorandum by Mr. F. H. DE VOS, Advocate.

Johan Gideon Loten.

I take the following from Mr. R. P. van den Bosch's list* of persons who held office in Ceylon under the Dutch :—

“ 1754, 30th September. Johan Gideon Loten, † born in Utrecht 16th May 1710, son of Mr. Jan Carel Loten, *Secretaris van den Lekkendyk, benedendams*, died 1st December 1763, and Maria Aartsen van Juchem. Johan Gideon Loten was married, ‡ 25th August 1733, to Anna Henrietta van Beaumont, daughter of Cornelis van Beaumont, died 1724, Independent Fiscal of the Cape of Good Hope, and Deliana Blesius. § Anna Henrietta van Beaumont was born in the Cape of Good Hope on the 15th November 1716, and died in Colombo on the 10th August 1755.

“ Johan Gideon Loten married, (2) in Banstead in Surrey, 4th July 1765, Letitia Cotes, daughter of Digby Cotes and Elizabeth Bannister, and died in Utrecht, 25th February 1789. The following is an extract from the Burial Register :—

“ ‘ Overleden op 25 Februari 1789 en begraven in de Jacobikerk : Del Wel Ed. G. Heer Mr. Johan Gideon Loten, op den Drift bij de witte vrouwenburg, laat na zyn vrouw, maar geen kinderen. Gezonken f. 250 en op den 2en May 1791 het wapen opgehangen.’

“ We also have come across the name of Joseph Loten, 1709–10, *Fiscal Independent*, who in the year 1721 returned to Holland with a return fleet of 34 ships and (a cargo) worth more than ten million guilders (Val. I. v. p. 177).

“ He is also mentioned as Loten *Heer van Bunnik en Vechten. Witte Vrouwen en Astede, mitsqaders Kanunnik ten Capitelle van den Dom*. He was the uncle of Joan Gideon Loten.

“ Joan Gideon Loten, born in Utrecht, is mentioned as a student in the Academy of Utrecht Ao. 1776.

* 1 *Wapenheraut* 77.

† *Journal, R.A.S., C.B.*, vol. XV., No. 49, p. 235; vol. XVII., No 52, pp. 16, 18.

‡ *At Batavia*, 24th August 1733.

§ *Journal, R.A.S., C.B.*, vol. XVIII., No. 56, p. 327.

“In the first volume of a copy of Valentyn’s work on the East Indies, which was published at Dordrecht, 1724–26, there is the following note on the front sheet :—

“ ‘Dit werk is vermoedelyk in het bezit geweest van den Heer Joan Gideon Loten in 1754 Gouverneur en Directeur van Ceylon (zie de *eigenhandige* aantekening op page 320 van het IIIe Dl). This book I bought in 1735 or 1736 at Samarang on the East Coast of Java; it was with me at Batavia, Macassar, Ceylon, Cape the Good Hope, Utrecht, and Londen, also at St. Helene. I bought it of Benjamin Blom and as I remember *pd. st.* at the rate of about f. 150, certainly dear enough.’ ”

The above does not perhaps add much to what is contained in Mr. Ferguson’s paper and Mr. Anthonisz’s memorandum.

I have not been able to discover the grandparents of Governor Loten. According to Mr. van Houten there lived at Utrecht in 1756 a brother of the Governor by name Arnoud, who was burgomaster of Utrecht and died there in 1801. This must have been the Arnoud Loten * who was married to Lucretia Christina Scheffer and had by her Mr. Joan Gideon Loten † (the Governor’s namesake), born 23rd September 1755, died 10th January 1809, married at Utrecht, 29th May 1797, Henrietta Wilhelmina van den Heuvel, born in Utrecht, 14th January 1769, died in Bonn, 1st June 1829. As regards Joseph Loten ‡ the following is an extract from the Marriage Register, Batavia :—

“ 13 Juli 1720.

“ Joseph Loten van Amsterdam laatst geweest zijnde independent fiscaal in de directie van Bengale weduwnaar van Alberta Pierraerd van Batavia met Abigael Tant van Batavia weduwe van de Edele Joan van der Nipoort, oud-secretaris van de Hooge Regeering van India.”

He must therefore have returned to the fatherland a year after his marriage.

* *Aanzienlyke Familien*, Vorsteman van Oyen, vol. II., p. 60.

† Student in the Academy of Utrecht.

‡ *De Nederlandsche Leeuw*, vol. xxiii., p. 286.

Dirk Willem van der Brugge (Brugge, Bruggen).

The following is an extract from the Marriage Register, Batavia :—

“ 19 Juli 1752.

“ Dirk Willem van der Bruggen van Bergen-op-zoom, opperkoopman, weduwnaar van Christina Engeltina Rebbens met Arnoldina Deliana Cornelia Loten van Semarang.”

The children * of these parties born in Ceylon were the following :—

1. Jan Carel Gideon van der Brugge (Bruggen), baptized at Colombo, 15th April 1753.

2. Albert Anthony Cornelis van der Brugge (Bruggen), baptized at Colombo, 31st March 1754, died at Colombo, 30th July 1755.

3. Anna Henrietta van der Brugge (Bruggen), baptized at Colombo, 20th April 1755.

According to Mr. van Houten the brother and sister of Albert Anthony Cornelis van der Bruggen predeceased the latter.

Cornelius van Beaumont.

† *Cornelius van Beaumont* of Breda, *onderkoopman* and *dispencier*, Colombo, 1712, Fiscal of the Cape, 1713–24, was married to Deliana Blesius, daughter of Johannes Blesius and Christina Diemer. He had by her :—

1. Catharina Balthazarina, baptized 7th October 1714;
2. Anna Henrietta, baptized 22nd November 1716;
3. Christina Jacoba, baptized 21st August 1718;
4. Cornelis Johan, baptized 18th February 1720;
5. Elizabeth Arondina, baptized 2nd March 1721;
6. Deliana Isabella, baptized 5th July 1722;

All born in the Cape.

His eldest daughter, Anna Henrietta, was baptized in Colombo on 9th October 1712, and must have died young.

* 52 *Navorscher* 130.

† 2 *Wapenheraut* 6.

Johannes Blesius of Breukelen, married, 22nd April 1685, Christina Diemer, and had by her :—

1. Gysberta Johanna, baptized in the Cape, 23rd June 1686, married Governor Rumpf.*
2. Christina, baptized in the Cape, 24th September 1690, married Jacobus Cruse.†
3. Deliana. baptized in the Cape, 29th November 1693.

Pieter de Bevere.

I agree with Mr. Anthonisz that Pieter de Bevere was the son of David Willemsz de Bevere and Christina de Kelcq, but I do not know where Mr. Anthonisz got the information that Christina was the natural daughter of Willem de Kelcq, master sailmaker, and Anna Coere. Willem Jansz de Kelcq, of Dor-drecht, sailmaker, was married in Colombo, 3rd September 1690, to Dominga Harmensz, of Colombo. From a woman called Maria Lucas he (de Kelcq) had an illegitimate daughter. Wilhelmina, baptized in Colombo, 3rd May 1711. Dominga Harmensz was perhaps the daughter of Hendrik Harmensz of Norden, a brazier in Colombo in 1669, thereafter a *vrijburger*. by his wife Dona Dominga. In the catalogue referred to by Mr. Ferguson at the commencement of his paper de Bevere is called a *sieur*, which I think has a peculiar significance. It means that he held the rank of a boekhouder. Valentyn ‡ says : “De onderkoopman, die als *seur* of boekhouder van ons schip medevoer, was Jakobus Valentyn, enz.”

This confirms Mr. Anthonisz's statement regarding the status of de Bevere in 1757. Governor Loten's statement that Major de Bevere “was of the most noble and ancient family of de Bevere” I think requires confirmation. Vorsteman van Oyen § makes no reference to him.

* Journal, R.A.S., C.B., vol. XVIII., No. 56, p. 326. She married (as widow Rumpf) in Batavia, 16th March 1726, Mr. Everhard Kray-vanger of Macassar. Advocate Fiscal of India, widower of Maria Catharina de Vos (24 *Nederlandsche Leeuw* 24).

† Journal, R.A.S., C.B., vol. XVIII., No. 56, p. 327.

‡ *Van en naar Indie*, by A. W. Stellwagen, p. 126.

§ *Aanzienlyke Familien* (de Beveren).

Pieter Cornelis Hasselaar.

Pieter Cornelis Hasselaar. Burgomaster of Amsterdam,* thereafter Resident, Cheribon, born at Batavia, 24th March 1720, was the son of Cornelis Hasselaar of Enkhuyzen, Director-General of the Dutch Indies, by his third wife Gertruida Constantia Clement. Pieter Cornelis Hasselaar married (2) Gertruida Margarita Mossel, of Negapatam, the daughter of the Governor-General Mossel. The issue of this marriage was Adriana Hasselaar, born in the Indies, 4th July 1795, married in 1780 Jacob Antony de Roth, born Surat, 1753, the son of Johan de Roth and Susanna Anthonia van der Bruggen. So that in 1780 Pieter Cornelis Hasselaar's son-in-law was the son of (perhaps) the sister of Dirk Willem van der Bruggen, Loten's son-in-law. This is the only possible connection I can see of the Governor with the Hasselaar family.

The Arms of Loten and van Beaumont.

The arms on the tomb of Governor Loten's wife are the impaled arms † of Loten and van Beaumont, the blazons of which I have taken from Rietstap's *Armorial Général* (2nd ed.).

The close resemblance between the arms of François van Beaumont and Anna Henrietta van Beaumont shows that they were, beyond a doubt, of the same family.

3. Mr. GERARD JOSEPH then read the following note from Mr. A. E. Buultjens, bearing on the subject, prepared from certain Dutch manuscripts in his possession which he purchased at the Hague on one of his visits there :—

NOTE BY Mr. A. E. BUULTJENS, B.A.

I have in my possession the Memoir on Ceylon of Governor Loten, and as both Mr. van Houten and Mr. Anthonisz state that "all trace of other Papers of Loten has, alas, since been lost," and "the diaries for the five years of Loten's rule in Ceylon are unfortunately lost," I hasten to give (as I received the proof of Mr. Ferguson's paper only yesterday, and the meeting is for the day after to-morrow) only an outline of the manuscript.

The Dutch manuscript in my possession consists of seventy folio pages of contemporary writing in a fair state of preservation. I purchased the manuscript, with some others, from the same

* 52 *Navorscher* 240 : "un charmant vieillard (1787), la santé et le contentement personifiés" (Mevr. van Hogendorp).

† Journal, R.A.S., vol. XV., No. 49, pp. 229, 235.

well-known Nijhoff of the Hague from whom Mr. van Houten bought his collection of drawings, in one of my trips to Holland in 1885 or 1886. The title of the Memoir is “*Memorie raekende Ceylon door den afgaanden Gouverneur Joan Gideon Loten aan den aan Komenden Gouverneur Jan Schreuder, nagaleten, gedateert Colombo, 28 Feb., 1757, geinsereert in het 2nd Ceylon's Briefboek, 1758, p. 202.*”

(Memoir on Ceylon left by the outgoing Governor Joan Gideon Loten to the incoming Governor Jan Schreuder, dated Colombo, February 28, 1757, inserted in the 2nd Ceylon Letterbook 1758, page 202.)

I may at once say that though several officials' names are mentioned, no mention is made of De Bevere or Lebeck. However, some light is thrown upon the work of Land Surveyors in Ceylon in 1743–1757, which is interesting, as the artist De Bevere was a Land Surveyor. I may here mention that Dutch surveyors' plans were coloured, and far more works of art than modern slipshod surveys; and from two such plans in my possession I can fancy that De Bevere must have had a training in drawing before he qualified to become a Land Surveyor.

The contents of the Memoir are—

SECTION I.

The Company should remain in harmony with the Prince of the Land.

Chapter I.

The King's birth and marriage.

The Dessaves and Adigaars.

Relations with the Kandyan Court *re* Kaymel and Chilaw banks. Siamese embassy.

Chapter II.

Of the Princes and their rule on the coast of India and the Maldives.

Madura, Tinnevely, Tutucorin, &c.

The Maldivian Sultan, cowries, embassy.

SECTION II.

Administration of possessions and subjects.

Chapter I.

Functions of Dessave, Land Raad, the Tombo or Land and Garden Description.

As De Bevere was Land Surveyor, 1743–1757, I translate a part of this chapter, and it may well be imagined that De Bevere had ample scope for study of birds from nature during his surveys.

The Land Description was begun in Colombo in 1743 [the year that the artist De Bevere was appointed Land Surveyor], and now, says Loten (in 1757), “the Register of Lands and Men of the Hina, Raygam, Alutkoer, Hewagam, and Happitigam Korles has been completed.

“The Tombo at Galle was begun in 1741, and the Four Gravets and the Talpe Pattu have been completed; since then in the past year (1756) a beginning has been made with the Gangeboda Pattu, a great part of which, together with the Wellabodda Pattu and the whole of Wallalawitte Corle, still remains to be completed.

“The Tombo at Matara was begun in 1740, and during this time the whole of the Morawak Korle has been completed, and in course of completion are the Mature, Four Gravets, Weligama, Weligam Korle, Girreway Pattu, as well as the Wellabodda, Gangebodda, and Kandeboda Pattus, Dondra, the Baaygams, Cattoene, Oedabokke.

“Now, in order that the Land Description may be brought to perfection, everything depends, says Heer van Gollensee [a previous Dutch Governor] on an accurate survey, and this has been already accomplished so far that the gardens and fields of the village Attidie in Salpiti Korle, Kosgama in Hewagam Korle, Billein [Bellana?] in Pasdun Korle, Raygam, Kelanie, and Paloum in Hina Corle have been surveyed by the Sworn Surveyors, and charts and registers thereof have been made.” Here Loten points out the necessary connection between the Land Description in the Tombo and the Surveys, so that the possessions of each man may be accurately described, and by the surveys and charts it can be immediately discovered whether encroachments have been made, and so that the surveys and the charts made from them shall agree with the description of the land. More on this subject may be read from the report just sent in on February 3, 1757, by the Sworn Land Surveyor, together with the compendiums referred to there, the charts, registers, &c.

Chapter II.

Of the lands and the income from them.

It is here noted that the revenue fell owing to plague depopulating the country (and Loten suggests measures as taken in Java, Macassar, &c.), and a terrific storm or hurricane in May, 1755, which uprooted a considerable number of trees.

Chapter III.

The Inhabitants, their Chiefs, duties and accomodescans.

Six folio pages here describe the different castes and the services by each.

SECTION III.

Revenue from the land.

Chapter I.

Trade.

Linen from Madura.

The Fanam Mint.

Arecanuts, chanks, salt, elephants, &c.

Chapter II.

The Income.

Revenue fell.

Chapter III.

The Products of the Land.

Cinnamon and disorders of the Chalias. About the conservation of the cinnamon trees more may be seen from the report of the Dessave Cramer and the annexures of the officer of the Mahabedde Leembruggen dated April 24, 1756, as well as that of the Sworn Land Surveyor of February 3, 1757. [This last may well be De Bevere, who was then at the head of his class.]

Abraham Samlant [who superseded Lebeck] is here mentioned as being Upper Merchant and Chief Administrator.

The Ceylon cardamom.	|	The pearl reefs (4 pages folio).
Pepper cultivation	|	The blood coral.
Coffee cultivation.	|	Maldivian cowries.

SECTION IV.

Internal affairs.

Religion :

Jansz and De Melho (Jaffna).

De Silva (Trincomale).

Bronsveld, Sybrands, Meyer (qualifying at the Seminary).

Wirmelskircher (Rector of School).

Potken, Smith, Schultze (Predikants at Colombo and Galle).

The printing press : catalogue of printed books.

The Courts of Justice.

The fortifications and artillery.

The Navy.

Income and expenditure.

4. HIS EXCELLENCY THE GOVERNOR : Does any gentleman wish to speak on the papers which have just been delivered ? If there is no discussion I would ask the President to read a paper on "Prehistoric Man and Stone Implements in Ceylon."

5. The PRESIDENT (Mr. FERGUSON) introduced Mr. Pole's paper by saying : I am not a geologist, and indeed know very little on the subject of the stone age and prehistoric remains. But one of the greatest authorities in India, Mr. Bruce Foote, F.G.S., has been in communication with Mr. Pole, and has expressed great interest in his work as a collector. I am not sure that he has seen more than diagrams from Mr. Pole as yet ; but we have the fact that the Drs. Sarasin so prized Mr. Pole's first collection of stone implements that they asked him to take them to Europe. Fortunately Mr. Pole was able to duplicate the collection, and he has favoured us with a series of specimens and certain notes on the same. I think it was before he left the East that Lord Curzon related how a friend of his examined the arrows in the quiver of a native hunter in India. He found that the first arrow was tipped with stone of the neolithic age, but that the next was tipped with electric telegraph wire—a theft from the 20th century. There is no case here of such modern application, but Mr. Bruce Foote, judging by the diagrams, says the collection shows a type of "flake production," quite distinct from that hitherto met with in Southern and Western India. I will now read from the notes :—

A FEW REMARKS ON PREHISTORIC STONES IN CEYLON.

By JOHN POLE.

THE Drs. Sarasin of Basle, who had visited our Island on several occasions previously, in April last determined stones of the character shown to you this evening to be prehistoric flakes of the Palæolithic age and of Vēddaic origin. These gentlemen found similar flakes in the Vēddā caves of Nilgala and elsewhere in Ūva.

This therefore is our starting point. Flakes from all parts of the Island—Puttalam, Hambantota, Mátalé, Náwalapitiya, Dimbula, Dikoya, and Maskeliya—have been found of a similar nature; the deduction is that they were made by the prehistoric Vēddās, and that they are of Palæolithic age.

Iron was introduced, seemingly, when the Dravidian invasion occurred about 2,600 years ago. These stones may therefore be reckoned at any number of years older, or, to allow for the distribution of iron, so many years less in age.

They seem to be of common occurrence throughout the Island, and fairly abundant; the real wonder being that they were not discovered earlier.

There may be amongst them many that show no signs of having been used, and, to our perceptions, there lies a great difficulty in believing that they could be made of use by any man; but they have been found in good society, alongside of many that possess the signs, and they tell us something of this small-handed retiring race.

Unfortunately their utter crudity and almost shapelessness of design throughout this whole series affords great scope for controversy. The simplicity of the implements can only be appreciated by those who can realize the degraded state of the beings who devised them.

Even in the case of some of the latest found slate, shell, and flint implements of the Neolithic age, in Cornwall, a prejudice existed in the minds of many as to their nature, chiefly on

account of their want of workmanship, it being urged that they were merely pieces of sea-washed rubble. "No such implements were to be found on the beach, however," and I am afraid this is the only point we can bring forward in favour of the chips (No. 14), for none of these flakes of "shaken" quartz are to be found except in the general camping grounds on our mountain ridges.

The Veddás are a small-handed race, the Drs. Sarasin tell us, and these stones appear to give us the same information of the prehistoric. We merely surmise the uses they were put to : the peeling of the arrow-wands, and scraping of the bow into shape, and shafts of spear or javelin, the skinning of the slain animal, and dressing of the skins for raiment, manufacture of bags for portorage of their stone implements. &c. Beyond this there was no "necessity." "They ate, they drank, and slept, and then, they ate, they drank, and slept again"; but I suspect, from the nature of their artillery, that hunting entertained them not a little.

Almost without exception these stones have been collected since the Drs. Sarasin made their interesting discovery; their existence, of course, was known to me some time previously. All stones collected and preserved, previous to their letter in the *Observer* of April 19 this year, about 100 in all, fair examples, have been forwarded to the Drs. Sarasin. These will be described and probably illustrated in the book the Doctors are writing on this subject.

The main features of interest in these specimens lie in the circumstance that the Doctors recognized the nature of the stones which had been forwarded to them in Kandy as being very similar in style to those forming their Uva discoveries.

An attempt has been made to place this lot in some sort of arrangement to allow of their exhibition, by showing the nature of the crystals from which most of their keenest implements were struck, (1) showing their rough water-worn exterior : and (1a) flakes showing the outer skin of such crystals on their surface. These are marked No. 1 and No. 1a.

The crystal marked No. 1 has had a chip taken off, probably by a Veddá, as a commencement; this shows nicely the internal nature of the stone.

No. 2 gives us an idea of the delicate colouring of some of the crystals they employed, and with them are shown "cores" of various crystals found on their encampments.

No. 3 I presume are "arrow-heads": these were picked up in various parts of the district, with the exception of a few which were evidently spoilt in the manufacture; these were found in the society of other "flakes" and "chips" in their camping grounds. "Worked stones" from this clear quartz are represented (a) by "flakes" which have been smashed away "usefully"; (b) by pointed or sagittiform or spatulate stones showing undoubtedly the two "business edges" somewhat sharpened for or blunted by work. "Arrow-heads," we must surmise, may have been of any outline, the unit of value being the keenness of the edge; and of any size, the character of the quarry determining this; and we may suspect that no good point was lost sight of; probably the edge of the appetite kept the edge of the flake keener, or was it the reverse?

No. 4 shows some arrow-heads wanting the "other half"; these we might reasonably presume were spoilt in the working. Theory ever demands some imagination, and without this there must exist much doubt and lack of faith in any collection of this nature.

No. 5 is interesting as demonstrating how the upper angle of a four-sided stone was removed to form a good "point."

No. 6, glass-like flakes: these occur in great quantities, and represent, I believe, their most cherished ideals for tools; on account of the keenness of the edge of the material, probably these only were used as knives. One of these flakes has an interesting human profile, and one is precisely similar to a flake from a salt-cellar. I believe it to be of stone, and to have been a favourite implement at one time. The edges have been much worn by use. There are other flakes quite as clear, and the marks of the fracture, even under a powerful lens, appear precisely similar.

No. 7. Flakes of a coarser nature showing signs of work on the edges.

No. 8. Flakes discoloured by acids or iron stains found on one part of the same field.

No. 9. Some unworked flakes and chips from the prehistoric camps.

No. 10. One set of chips taken from one camping spot on Deeside estate.

No. 11. One set of chips taken from one camping spot on Scarborough estate.

It is much to be regretted that two or three years previous to this exhibit being prepared, all good and likely "flakes" had been removed from the vicinity and are now in the collection forwarded to the Drs. Sarasin. They might have made Nos. 10 and 11 more interesting.

No. 12. Three crystals, which may represent boring tools, one of which has apparently been used as such; one seems to have been used until the point broke; the third crystal, I believe, has never been in use.

No. 13. One crystal which may have been used as a chisel, as both ends seem to have been at work.

No. 14. One lot of crystals of an entirely different nature, probably of the former age; a softer stone must have been made use of previous to the discovery of the crystal quartz. The form appears of older type, and the intention can be seen clearly in three or four of the specimens. The stone is rare in Maskeliya, and very few examples of this nature have been found as yet.

THE (?) EOLITHIC AGE.

No. 14. A few words on these stones. There remains much of great interest to be worked out, chiefly in discovering, if possible, some implement which extends a probability of an earlier manufacture.

With a knowledge of the present-age Veddá, and these prehistoric flakes before us, it is extremely difficult to imagine anything more crude and simple. We must therefore theorize on the material: Had these people always made use of vitreous crystals? The answer is plainly "No"! There was a time when a softer stone was known which answered all of their purposes fairly well; the rock they made use of was of a commoner and coarser nature, and much softer.

The vitreous crystal was the greatest discovery of this (?) Eolithic age, whose flakes and implements were of the nature

of those shown in No. 14. This is pure conjecture, but the suggestion is made, not alone for the value of the idea, but because the material of No. 14 is so decidedly different from the vitreous flakes, and that the forms are so peculiar. The stones are much less frequently met with. At the same time we are aware that in those districts where this rock is common it is possible that these flakes may be also of common occurrence. This we have to discover.

On reading this to a friend who was much interested in the subject he remarked that it was a pity a little more was not written. My only apology must be that very little more should be written, pending the issue of the Drs. Sarasins' book; they will probably give us something not merely conjecture, which anything written at this date must surely be.

Like most men of some experience in life, I have formed opinions regarding the great changes in the past: but I have no wish to force these views upon others. What is offered, diffidently, is a general, and it is hoped, a not altogether uninteresting selection of ideas, which may at some future time assume shape, and form some foundation for a wider knowledge of these ancients.

NOTES ON THE SECOND SELECTION.

N.B.—I have endeavoured to forward in this, my last lot of prehistoric stones, none but those which show undoubted signs of the hand of man. To all who have become acquainted with the beautifully worked "flints" with which we were so familiar in our school days, these "attempts" must present a great surprise. The stone is not so workable as the English flint, though really of the same nature. Flint is composed of silica in a purer state perhaps than the coloured crystals of the East.

Our stones do not seem to lend themselves to "flaking" so well, and really must have exercised the patience of the aborigines, sometimes far beyond usual limits, for rough and apparently unworked as they seem it is difficult at this present day with the present age tools to obtain a flake as desired.

The crystals seem to conform to no special rule. Some of the purest nature have a fracture similar to the "engine turning" on a watch. There are in my possession stones of a very much earlier age—still Palæoliths.* They are composed of a material that lends the extreme of uncouthness to these weapons. I arrive at their earlier date from this circumstance alone, for I cannot imagine a "hunter" once making use of such stone, after the discovery of the valuable "vitreous" variety of quartz (or crystals).

Box marked No. 1a contains two arrow-heads (weapons). The specimen numbered 33 is a very good instance of rough workmanship; and it is extremely difficult to imagine how this implement was "insinuated" except by excessive force—the negotiating point, probably lost, could hardly help this much forward, and yet there are signs of much work expended on it.

The specimen marked 43 is an ordinary surface flake with the corners knocked off—a much more serviceable weapon; and after a view of No. 33 one can imagine the joy of the prehistoric who secured it. These two stones show such a wide difference in their nature that they fairly mark the extremes in the use of the material obtainable.

Box marked No. 2a contains 14 arrow-heads (weapons), of which Nos. 36 and 37 were either spoilt in manufacture, or spoilt on contact with a bone. I think the artizan was to blame, for they were found on the same spot. The remaining implements are of the usual "diverse forms" found up-country.

Box No. 3a are forms of what I surmise are of older origin, judging from the nature of the material. Eoliths are far more likely to be found in the Northern Provinces, for, if the aborigines entered the Island from the North and gradually passed South and East, the inference is that their vestiges in the Northern Provinces would be of an earlier date. It is quite possible that they entered the Island during the Palæolithic age. Therefore any flakes from the northern parts of the Island should be of special interest.

* These stones have suffered from the "weathering," and seem to retain the outline only of the intended weapon. I think the correct term for these stones should be "implements." We can only guess at the purposes for which they were intended and used.

Box No. 4a merely demonstrates that our prehistorics made use of more than one kind of quartz.

Box No. 5a contains some "flakes" of great beauty: one or two of them seem to tell us that they have been made of use from the appearance of the edges. The large flake shows no sign of having been used. They suggest "cutting" implements, and many retain the outer skin of the water-worn crystal.

Box No. 6a has simply some chips found on one spot, the camping ground, where the stones were manufactured. The rough triangular, or heart-shaped stones, in this collection, may be called arrow-heads for the sake of discrimination, for they were probably used as such, but they give one no idea of an arrow-head such as we understand it.

In the box 1a are two forms which are the nearest to that which is understood by the word "Sagittate." These two stones are interesting examples of "accidental" formation. They became of shape, adapted to a point at the first blow from the rock. No. 33 may have been shaped "slightly"—you may see that "they" were afraid of taking off too much from fear of losing its use altogether; and some very rough projections remain; but No. 43 is the result of one stone "bumping" against another, a pure surface flake, with a portion of the coating of the crystal proving this. Probably this has never been used; the base on one side of the "bulb of percussion" has been knocked away, and possibly three blows of the maker finished the weapon.

NOTE BY MR. R. BRUCE FOOTE.

The subject Mr. Pole treats of is one of great scientific interest to all true archaeologists. The publication of his paper will certainly do good in drawing attention to the subject of the ancient stone implements found in Ceylon, no matter by what names they be called, or to what age they be assigned.

Mr. Pole is evidently an enthusiast on the subject of the old implements, and will I hope meet with much sympathy in his researches. He has very kindly sent me a number of specimens for inspection, and offers me some of them. I have not yet had time to go through his "finds," being myself very busy at the Madras Museum arranging the large collection I transferred there. Some of Mr. Pole's specimens I glanced at are certainly genuine artifacts. Ere long I hope to unpack them and compare them with some Indian specimens.

6. HIS EXCELLENCY THE GOVERNOR: Does any gentleman wish to speak on the Paper just read and the notes thereon?

There was no discussion.

7. HIS EXCELLENCY THE GOVERNOR: It only remains for me to propose on your behalf a cordial vote of thanks to the two gentlemen who have given this Society such interesting Papers as we have listened to this evening. The first Paper especially, though long, is of particular interest to this Society, considering that the Society has taken such an interest in the Natural History section of this Museum. The Paper in itself shows a remarkable amount of research. This we quite expect from Mr. Donald Ferguson, who, I understand, is a wonderful authority on Dutch Records. Mr. Anthonisz himself you have heard read his portion of the Paper, and he also is a gentleman to whom the Members of this Society always listen with the greatest attention, and who always interests them in the valuable matter he brings forward to their notice. I am sure we all much regret, as Mr. Ferguson has explained in his Paper, that such a valuable collection of paintings has been lost to this Museum. The Paper in itself is, as I say, a most interesting one, and it may be divided into a consideration, if I may so express it, of the employer and the employed. The matter of the employer rather strikes me personally as coming to the Island and only here a couple of months, because it shows me that a Governor a century and a half ago had a great deal more time at his disposal than a Governor has now. As regards myself, much as I should wish to do so—and ignorant as I am on matters connected with Oriental study—I feel that it would be impossible for a Governor now-a-days to devote such time as Governor Loten did to the study of natural history and architectural antiquities, and also to write a long series of notes such as is referred to on page 227 in the lectures we have just heard delivered. What is particularly interesting is that this Dutch Governor, who had rendered such excellent service and such varied service, ultimately settled in England, and devoted himself to the study of zoology and botany; and it was in connection with the ability he displayed in these subjects he attained the high honour of being made a Fellow of the Royal Society.

As regards the artist himself, I think all are agreed he was not only a heaven-born genius, but also that it simply shows—he was three-fourths or four-fifths Ceylonese, I forget which—what an enormous power of conception of the artistic there is inherent in the native races, which we see not only by the exhibition of Mr. de Bevere, but also in other exhibitions of art, both in India and in this Colony.

As regards the Paper written by Mr. John Pole, I confess I am out of my depth; but I feel sure the specimens are extremely interesting, and we feel deeply grateful to Mr. Pole for his further offer that when his colleague visits this Colony next year he will place at the disposal of the Society additional specimens even more interesting than those placed before the Society this evening.

With these few words, as it is getting very late, I wish on your behalf to propose a vote of thanks to the gentlemen who have afforded us such an interesting and pleasant evening.


8. THE PRESIDENT: Ladies and Gentlemen, it is my duty and great pleasure to move on your behalf a most cordial vote of thanks to His Excellency the Governor, as Patron of this Society, for his kindness in coming here this evening to preside over our meeting. Everyone acquainted with official routine must know how much pressed with important business the Governor must be so soon after his assumption of office and especially at this time of year, when all the heavy expenditure for next year is being arranged. We are, therefore, specially indebted to His Excellency for so readily agreeing to come to us, and our most hearty thanks are due.

9. MR. J. PIERIS: I have very much pleasure in seconding the vote of thanks proposed to His Excellency for presiding here this evening. As Mr. Ferguson has already told you, it is a matter of great gratification to see His Excellency taking such an early opportunity of showing his interest in this Society, which is an ancient and a very important Society in the Island. His Excellency very truly told us that he could not afford the time to write notes on natural history, but I am sure His Excellency, in the many things he will have to look after in the administration of this Colony, will find time to come to the Society's meetings to hear the interesting Papers read, especially on matters which throw some light on the administration of Ceylon. The notes read by Mr. Buultjens show His Excellency that there are subjects to be found in the Journals of the Society which will assist him greatly in the work of modern administration. With these few remarks, I beg heartily to second the vote of thanks proposed by the President.

10. HIS EXCELLENCY THE GOVERNOR, in acknowledging the vote of thanks, said: I must thank the proposer and seconder very much indeed for the kind words in which they have proposed this vote of thanks to the Chair, and I must also thank you, ladies and gentlemen, for the way in which you have received their remarks. I can only say that during my period of administration here it will give me not only great pleasure, but even more than pleasure—it will give me much gratification to do all I possibly can to further the interests of the Asiatic Society. I notice that my predecessor did not come to a Meeting for about a year after his arrival in the Colony. He wished to familiarize himself with all that is of interest that is to be found in the Island and of which this Society takes so much care and notice. I, on the other hand, think it better to at once throw myself on your mercy and acknowledge myself as perfectly ignorant. I have been looking at the Index of proceedings of this Society and all the Papers which have been read for a large number of years past, and I assure you I am appalled at the mass of ignorance I have in these matters appertaining to Oriental studies, and I think it is better to take the

advice given to me to-night by Mr. James Pieris to attend the meetings of the Society here and begin to learn and be a humble disciple. In doing that I will not place myself in a worse position than did the Governor when the Society was first founded in 1845. and when the Governor of the day became the first President and Patron of this Society. At the same time I have considerable hesitation in occupying the Chair at your meetings, seeing what distinguished predecessors I have had before me. I refer especially to Sir William Gregory. I refer also to Sir Arthur Gordon, now Lord Stanmore, who was a most active Member of the Society. and gave them the benefit of a very large amount of knowledge. My immediate predecessor also took the greatest interest in the archæology of this Island, and didⁱⁿ the same way as I hope to do, even if I have not the fund of knowledge my predecessors have possessed, assist the Society. I cannot help feeling that one has a grand opportunity in a Colony of this sort of picking up knowledge which is interesting in itself, but most valuable in keeping the present in touch with the past. When I read books like Emerson Tennent's *Ceylon* and Cave's *Buried Cities* one feels how small one is in the presence of past great civilizations, such as those that were on this Island. When you think of the cities of Anuradhapura, towns of enormous size with teeming populations, their works of irrigation and remains of art, one has a field of study—if, as I say, a wretched Governor can find time to study—which will be most interesting and profitable for him. The Buddhist remains in this Island are very wonderful, and it was only two days ago I stood in this Museum talking of them with His Majesty the King of Siam. He then said to me: "But the worst of it is you have all the remains of Buddhism, but they are all in pieces. You ought to come to Siam to see remains of Buddha." I replied: "Your Majesty, I may go to Siam—I have been in Japan, where I have seen monuments to Buddha—but when I come to Ceylon I can study antiquity. We can show you antiquity which the other two countries do not possess." One feels we have a grand thing before us in the exploration, discovery, and piecing together, and reconstruction now being done so profitably and well by that hard-working officer of Government, Mr. Bell. I hope, as I say, that you Members of the Society will excuse any ignorance I may display of Oriental study when sitting in this Chair, but that at all events you will feel I have the interests of the Society at heart, and I will do all I can to profit by the instruction I get from the different Papers read. I thank you very much for the way in which you have responded to the vote of thanks.

This concluded the Proceedings, and those present thereafter inspected the specimens sent by Mr. Pole.



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JOURNAL

OF THE

ROYAL ASIATIC SOCIETY,

CEYLON BRANCH.

GENERAL MEETING.

Colombo Museum, May 30, 1907.

Present :

The Hon. Mr. J. Ferguson, C.M.G., President, in the Chair.

Mr. R. G. Anthonisz. The Hon. Mr. P. Arunachalam, M.A., C.C.S. Mr. T. P. Attygalle, J.P. Mr. R. H. Ferguson, B.A. Mr. C. M. Fernando, M.A., LL.M.	Mr. D. B. Jayatilaka, B.A. Mr. F. Lewis, F.L.S. Mr. P. E. Morgappah. Mr. E. W. Perera, Advocate. Mr. P. E. Pieris, M.A., C.C.S. Rev. W. J. Wijesinha.
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Mr. J. Harward, M.A., and Mr. G. A. Joseph.
 Honorary Secretaries.

Visitors : four ladies and twelve gentlemen.

Business.

1. Mr. JOSEPH, Honorary Secretary, read the Minutes of the General Meeting held on March 15, 1907, which were confirmed.

2. The election since the last General Meeting of the following members was announced :—Messrs. H. F. C. Fyers (Assistant Conservator of Forests), P. A. Goonaratna (Proctor), T. E. Goonaratna, W. T. D. C. Wagiswara, Rev. R. P. Butterfield, Messrs. S. G. Koch, T. Harward (Second Assistant P.M.G.), L. S. Woolf, B.A., C.C.S., M. A. C. Mohamed, James Hornell, A. H. Fernando. and A. E. Roberts (Proctor).

3. Mr. C. M. FERNANDO read the following Paper by Mr. Donald Ferguson, entitled “The Discovery of Ceylon by the Portuguese in 1506” :—

THE DISCOVERY OF CEYLON BY THE PORTUGUESE IN 1506.

By DONALD FERGUSON.

A nobre ilha tambem de Taprobana,
Já pelo nome antiguo tão famosa,
Quanto agora soberba e soberana,
Pela cortiça calida, cheirosa,
Della dara tributo á Lusitana
Bandeira, quando excelsa, e gloriosa,
Vencendo, se erguerá na torre erguida
Em Columbo, dos proprios tão temida.

CAMÕES, *Lusiadas* x. 51.

THE first landing of the Portuguese in Ceylon has been the subject of so much confusion and misstatement, even on the part of writers within half a century after its occurrence, that I have thought it worth while, in connection with the quatercentenary of the event, to gather together the earliest accounts of Dom Lourenço de Almeida's visit to the island and any documents that throw light thereon. These will be found in Appendix B at the end of this Paper. In Appendix A I have given all the references to Ceylon that I could find, from the time of Vasco da Gama's pioneer visit to India, in 1498, to the year before the news of the "discovery" of Ceylon reached Portugal. Finally, in Appendix C I have given all references to Ceylon from the first Portuguese landing down to the year 1518, when Lopo Soares erected the first fortress at Columbo. All these extracts are arranged, as far as possible, in chronological order. My reasons for giving those in Appendices A and B I shall explain further on.

Tennent's well-known work has obtained such a high reputation (and deservedly so), that it is most unfortunate that the chapter dealing with the Portuguese period in Ceylon (vol. II., chap. i.) is marred by many errors, chiefly due to the author's ignorance of the Portuguese language. The paragraphs relating to Dom Lourenço's visit contain (with



A handwritten signature in dark ink, consisting of a large, stylized 'M' followed by a flourish and a small 'v' or 'e' at the end.

DOM MANUEL THE FORTUNATE, KING OF PORTUGAL, 1495-1521

From "Leitura Nova" of de Almeida in the Torre do Tombo.
(The signature is that of the King "Rey.")

(From "A Journal of the First Voyage of Vasco da Gama," by kind permission
of the Hakluyt Society)

misspellings of names) almost as many mistakes as lines. They are as follows* :—

The Portuguese had been nearly twenty years in India before they took steps to obtain a footing in Ceylon. [A very misleading statement.] Vasco de [sic] Gama, after rounding the Cape, anchored at Calicut A.D. 1498, and Lorenzo [sic] de Almeyda visited Galle [?] in 1505 [?]; but it was not till 1517 [1518] that Lopez [sic] Soarez, the third viceroy [sic] of the Indies, bethought himself [?] of sending an expedition to form a permanent trading settlement [?] at Colombo;† and so little importance did the Portuguese attach to the acquisition [?] that within a very few years an order (which was not acted upon)[?] was issued from Goa [?] to abandon [demolish] the fort as not worth the cost of retention.

The first appearance of the Portuguese flag in the waters of Ceylon, in the year 1505 [?], was the result of an accident [?]. The profitable trade previously conducted by the Moors, of carrying the spices of Malacca and Sumatra to Cambay and Bassora, having been effectually cut off by the Portuguese cruisers, the Moorish ships were compelled to take a wide course through the Maldives, and pass south of Ceylon, to escape capture. [In going from Malacca to the Persian Gulf ships would have to pass Ceylon *before* going through the Maldives.] Don [sic] Francisco de Almeyda, the viceroy of India, despatched a fleet from Goa [!], under command of his son, Lorenzo [sic], to intercept the Moors on their route. Wandering over unknown seas [?], he was unexpectedly carried by the current to the harbour of Galle [?], where he found Moorish ships loading with cinnamon and elephants. The owners, alarmed for their own safety, attempted to deceive him by the assertion that Galle was the residence of Dharma Prakrama IX. [sic] [?], the king of Ceylon, under whose protection they professed to be trading; and by whom, they further assured him, they were authorised to propose a treaty of peace and commerce with the Portuguese, and to compliment their Commander by a royal gift of four hundred bahars of cinnamon. They even conducted Payo de Souza, the lieutenant of Lorenzo Almeyda [sic], to an interview with a native who personated the Singhalese monarch [?], and who promised him permission to erect a factory at Colombo [?]. Don Lorenzo [sic], though aware of the deception [?], found it prudent to dissemble, and again put to sea after erecting a stone cross [?] at Point de Galle [?] to record the event of his arrival.

* After each error I have inserted a note in brackets.

† To this Tennent appends a long footnote, which I quote below.

It is only fair to Tennent to say that for some of the statements to which I have appended query marks, &c., he has the authority of Barros, the official historian of Portuguese India : but a large number are due to misunderstanding of, or wrong deductions from, the Portuguese accounts ; while the mispellings can only be attributed to sheer carelessness.

Another example of Tennent's reasoning from wrong premises is found in the long footnote to which I have referred above. It runs as follows :—

This fact is not without significance in relation to the claim of Ceylon to a "natural monopoly" of the finest qualities of cinnamon.* Its existence as a production of the island had been made known to Europe by Di Conti, seventy years before ; and Ibn Batúta asserts that Malabar had been supplied with cinnamon from Ceylon at a still earlier period. It may therefore be inferred that there can have been nothing very remarkable in the quality or repute of the spice at the beginning of the sixteenth century [?] ; else the Portuguese, who had been mainly attracted to the East by the fame of its spices, would have made their earliest visit to the country which afterwards acquired its renown by producing the rarest of them :

"canella

Com que Ceilão he rica, illustre, e bella."

Camoens, canto ix. st. 14.

On the contrary, their first inquiries were for *pepper*, and their chief resort was to the Dekkan, north of Cape Comorin, which was celebrated for producing it. (*Tohfut-ul-Mujahideen*, ch. iv. s. i. p. 77.) [The work referred to says nothing about the Dekhan, &c.] It was not till 1516 that Barbosa proclaimed the superiority of Ceylon cinnamon over all others [?], and there is reason to believe, whatever doubt there may be as to its early introduction into the island, that its high reputation is comparatively modern, and attributable to the attention bestowed upon its preparation for market by the Portuguese [?], and afterwards in its cultivation by the Dutch. De Barros, however, goes so far as to describe Ceylon as *the Mother of Cinnamon*, "canella de que ella he madre como dissemos."—Dec. III. lib. ii. ch. i. [The taking over of the last two words in the quotation is, I think, a proof of Tennent's ignorance of Portuguese.]

* This subject is dealt with by Tennent in a very lengthy note on pp. 600–4 of vol. I. of his work (5th ed.).

A third misstatement of Tennent's is contained in the opening sentence of the paragraph that immediately follows that given above, describing the landing of Dom Lourenço, viz., "Twelve years elapsed before the Portuguese again visited Ceylon."

The inaccuracy of Tennent's conclusions on both points, viz., the notoriety of Ceylon cinnamon at the beginning of the sixteenth century, and the intercourse of the Portuguese with Ceylon between 1506 and 1518, is abundantly demonstrated by the extracts given in Appendices A and C respectively.

The earliest accounts of Ceylon written after Vasco da Gama's pioneer voyage are remarkable for the variety of spellings of the name of the island and the differing estimates of the distance at which the latter lay from Calicut. But they nearly all agree in attributing to Ceylon the production of elephants, gems, and *the finest cinnamon*. "Then," I hear the shade of Tennent say, "the conduct of the Portuguese becomes still more inexplicable. If they knew that the finest cinnamon was produced only in Ceylon, why did they not go thither and load their ships with the more costly spice rather than with the cheaper pepper?" Well, there were several very good reasons why the Portuguese acted as they did. In the first place, it must be remembered that, though they came to the East professedly as peaceful traders, on finding the hated "Moors" in possession of the bulk of the Eastern sea-borne trade, they set to work to oust them, not by competition, but by the strong hand, piracy and brutal massacre being considered matters for self-gratulation on the part of their commanders. Naturally then, with their small fleets and limited forces, they had to extend the field of their operations gradually. In the second place, as will be seen from some of the extracts I give, the Portuguese ships were able to get supplies of cinnamon at Calicut and Cochin, brought thither by native vessels from Ceylon. But the main reason is to be found in the statement of Albuquerque in his letter of 4 November 1510, quoted below, viz., "The pepper supplies the loadings of the ships; all the rest of the other goods is superfluity." One has only to consider for a moment the relative importance of the two spices as articles of consumption to understand why

the Portuguese assigned to cinnamon a secondary position.* Then, again, while bales of cinnamon had to be handled and stowed carefully, pepper was one of the easiest† cargoes to load, being simply poured into every available space of the ship, the spaces being then closed up.‡

But all this must not lead us to suppose that the Portuguese were not anxious to open up a direct trade with Ceylon as soon as possible. We may be quite sure that King Manuel had had it in his mind for some years,§ when in March 1505, in his instructions to Dom Francisco de Almeida,|| who was going out to become the first viceroy of Portuguese India, he gave the latter a distinct command that, as soon as possible after the dispatch of the homeward-bound ships, he was to send out vessels under a suitable commander “to discover *Ceylam*, and Pegu and Mallaca, and any other places and things of those parts,” with the object, stated in so many words, of exercising the right of overlordship, and making all

* Pepper, I may remind the reader, was from the first reserved by the king of Portugal as a royal monopoly: this restriction was abolished in 1570. A royal monopoly in cinnamon was not proclaimed until the year 1614: this privilege was lost to the crown of Portugal when Columbo fell to the Dutch in 1656, the Netherlands East India Company retaining it strictly until they were ousted from the island by the British in 1796.

† And one of the most dangerous; for if a gale was encountered, and the ship sprang a leak, the pepper often choked the pumps, rendering them unworkable.

‡ See Linschoten (Hak. Soc. ed.) ii. 225.

§ The statement in the letter from “the merchants of Spain,” written probably at the end of 1503, and quoted below (A 15), doubtless reflects the royal desire.

|| A portrait of Dom Francisco, reproduced from Pedro Barreto de Resende’s *Livro do Estado da India Oriental* (Brit. Mus. Lib., Sloane 197), is given in volume ii. of the Hakluyt Soc. translation of the *Commentaries of Afonso Dalboquerque*. A copy of this is given on the opposite page. A biographical notice of the viceroy by M. Ferd. Denis will be found in tom. 2 of the *Nouvelle Biographie Générale*, but it is not free from errors. Castanheda, Barros, and Correa all unite in ascribing to Dom Francisco a high moral character and a freedom from the common greed of gain. It cannot be wondered at that he had many enemies. His treatment of his appointed successor Albuquerque is described in the *Com.* i. and ii., and in Morse Stephens’s *Albuquerque*. An account of his sad end at Saldanha Bay will be found in Theal’s *Beginning of South African History* 177–79.



Dom Francisco de Almeida

DOM FRANCISCO DE ALMEIDA.

Copied from the Hakluyt Society's "Commentaries of Afonso Dalboquerque" n. 48

the profit possible out of the products of those countries.* A year later we shall find the king urging on his viceroy a still more ambitious scheme regarding Ceylon; but we must now follow Almeida to India, and see how he fulfilled his instruction to “discover Ceylam.”†

On 25 March 1505, D. Francisco de Almeida set sail from Belem for India with the largest fleet that had yet left Portugal for the East. It consisted of some twenty‡ vessels large and small, bearing some fifteen hundred men of arms, among whom were many fidalgos, as well as several hundred sailors, gunners, &c. Some of these vessels were to return to Portugal the following year with the cargoes of spices; but the larger number, chiefly the caravels and smaller ships, were intended to act as a defensive (and offensive) fleet in Indian waters. The names of the captains, and of their

* See A 19. I shall return to this important document later on.

† It may be as well to say here, in view of certain foolish objections that have been raised by writers on Ceylon to the Portuguese claim to have “discovered” the famous island, that the verb “discover” was used in this connection in the sense of “to bring into fuller knowledge, to explore,” and not in that of “to obtain sight or knowledge of (something previously unknown) for the first time” (see *New Eng. Dict.* s.v. “Discover,” senses 8 and 9).

‡ Barros says 22 (12 to return with spices), but names only 20 captains. Castanheda says 15 ships and 6 caravels, but also names only 20 captains. Correa says 8 large cargo ships, 6 small ships, and 6 caravels, but names 21 captains. The *Relação das Ndos* (quoted in *Com. of Af. Dalh.* ii. xxix.-xxxi.) says 14 ships and 6 caravels; but in one list names 22 captains, and in another 20. Figueiredo Falcão enumerates 21 captains; but he mixes up this fleet with the following one, and his numbers are all wrong. Couto (X. i. xvi.) says 21 ships, of which 6 were caravels to remain in India. Hans Mayr (who was factor on the *S. Rafael*) says 20 sail, viz., 14 ships and 6 caravels; while Balthazar Sprenger (who was factor on the *Lionarda*) says “naves xxx,” this number perhaps being an error for “xx.” Leonardo Ca’ Masser says that Dom Francisco was in command of 30 sail great and small, one of which, the *Nunciã*, was lost at the mouth of the Tagus; but when he comes to enumerate the different kinds of vessels in the fleet he says that there were 14 ships of from 1,000 to 300 *bote* (tons), 71 (*sic*, for 7 ?) caravels of from 200 to 150 *bote*, and 7 other caravels of from 80 to 100 *bote*. It is probable that these last two writers have included the six ships under Pero da Nhaya, which were to have accompanied D. Francisco’s armada as far as Sofala, but were prevented at the last moment by the sinking of the *Sant-Iago* (see Barros I. ix. vi.).

ships, as far as I have been able to ascertain, are as follows :—

D. Francisco de Almeida, captain-major [in the *Bom Jesus** ?];

Vasco Gomes de Abreu,† in the *São Gabriel* ;

João da Nova,‡ in the *Flor de la mar*§ ;

Pero Ferreira Fogaça,|| in the *Bella* ;

Ruy Freire¶ [in the *São Jeronimo*** ?];

Fernão Soares,†† in the *São Rafael* ;

Bastião de Sousa,‡‡ in the *Concepção* ;

* So says Fig. Falcão (the *Rel. das Nãos* has "*Jesus*"), who adds that she returned to Portugal on 1 June 1508. But, as I have already shown, Fig. Falcão's earlier lists are very incorrect, and his dates are quite unreliable. Moreover, I can find no mention by the historians of such a ship ; while, on the other hand, Barros (I. ix. iv.) states that the viceroy's ship was the *S. Jeronimo*. It is probable, therefore, that there was no *Bom Jesus* in the fleet, or that this was the name first given to the *S. Jeronimo*.

† Cast. says that this man was to cruise as captain-major between Cape Guardafum and Cambaya ; Cor. says as captain-major at Cape Guardafuy. See below regarding him.

‡ Commander of the third voyage to India in 1501 (see A 8, *infra*). Afterwards notorious as one of Albuquerque's bitterest enemies (see *Com. of Af. Dalb.* and Morse Stephens's *Albuquerque, passim*). Cast. says that he was to cruise as captain-major from Cambaya to Cape Comorim ; Cor. says from Cape Comorim to the Maldives, and, by a secret *alvará*, if he wished, he was to remain as captain-major on the coast of India (see *infra*).

§ The famous ship afterwards used by Albuquerque, and lost, with all the rich loot on board, on the return voyage from Malacca in 1512 (see *Com. of Af. Dalb.*).

|| This man was going as captain of the fortress that was to be built at Quiloa (see below).

¶ I cannot find why this man was given the command of what was, apparently, the admiral of the fleet.

** This ship, the *S. Rafael*, and the *Lionarda* were owned by Germans, and two, at least, had German factors on board (see p. 292, note §).

†† This man was a *commendador* of the order of Avis, and, as we shall see further on, has been confused by the historians with another *commendador*, Ruy Soares.

‡‡ Son of Ruy d'Abreu, *alcaide mór* of Elvas. Twenty years later we read of him as still commanding a ship.

Antão Gonçalves* [in the *Judia*† ?];
 Diogo Correa,‡ in the *Lionarda* ;
 Lopo de Deos§ [in the *Madalena* ?];
 João Serrão|| [in the *Botafogo*].

Doubtful captaincies :—D. Alvaro de Noronha, Lourenço de Brito, Manuel Paçanha.¶

D. Fernando Deça,**
 Fernão (or Alonso) Bermudez,††
 Lopo Sanches,
 Gonçalo de Paiva,‡‡
 Lucas d'Afonseca,
 Lopo Chanoca,§§

In caravels.

* He was *alcaide*, or judge, of Cezimbra, and was probably son of the man of the same name who was one of Prince Henry's pioneer captains half a century before.

† This name, by a natural error, appears as *India* in several works.

‡ Regarding this man see p. 296, note †.

§ Cast. and Cor. and one of the lists in the *Rel. das Nãos* omit this name, but the last two have a "Lopo de Goes Henriques," which may represent the same person. The *Rel. das Nãos* (list 1) and Fig. Falcão describe Lopo de Deos as "captain and pilot," but Barros, probably correctly, prefixes the "pilot" to the name of João Serrão, who was, in fact, a famous pilot (see Sousa Viterbo's *Trabalhas Nauticas* i. 284-87).

|| Correa and list 1 of the *Rel. das Nãos* have, erroneously, "Diogo Serrão."

¶ Cor. and the *Rel. das Nãos* give these names. These men were going out as captains of the fortresses at Cochim, Cananor, and Anjadiva respectively.

** Couto calls him "D. Francisco de Sá."

†† A Castilian fidalgo. Cor. omits his name. The *Rel. das Nãos* calls him "Alonso Bermundes," Fig. Falcão "Fernão Bernardes," Cast. "Fernão Bermudez," Barros "Bermum Dias," and Couto "Bartholomeu Dias." He is mentioned by the last two writers as in command of a *taforea*, a kind of transport vessel.

‡‡ Couto has "Gonsalo Pereira."

§§ Cast. appends to his name the appellative "the Big." He accompanied Dom Lourenço in the pioneer expedition to Ceylon (see B 2 and B 8).

João Homem,*	} In caravels.
Gonçalo Vaz de Goes.†	
Antão Vaz,	
Felipe Rodriguez,‡	

The details of the voyages need not detain us. Suffice it to say that, ten days after leaving, the *Bella* sprang a leak and foundered, all on board and most of the cargo being saved and distributed among the other ships; that Quiloa on the African coast was stormed and captured, a new king placed on the throne, and a fortress built, of which Pero Ferreira Fogaça was made captain, with other officials and a garrison of 150 men, while Gonçalo Vaz de Goes with his caravel and a brigantine was left to guard the coast; that then Mombaça was stormed and burnt, D. Fernando Deça being wounded by a poisoned arrow, from which he died a few days later;|| and that on 27 August the fleet¶ set sail from the coast of Africa for India.

* A cavalier of the feather-brained type (see Whiteway's *Rise of Portuguese Power in India* 106). On account of his indiscretions in India he was soon deprived of the command of his caravel, the *São Jorge*, which was given to Nuno Vaz Pereira.

† Correa omits this name. Bar. has in two places "Boes," but elsewhere "Goes." Cast. has "Goyos." Couto calls him "Gonsalo Gil de Goes."

‡ Cast., Cor., and Couto are the only ones that include this man's name in their lists. The first mentions him as in command of the *Spera* (*Esphera*), as does Barros later.

§ In addition to the accounts of the historians—Castanheda, Barros, and Correa—there have come down to us several contemporary narratives of the voyage. One is by Balthazar Sprenger, who was supercargo on board the *Lionarda*, and another is by Hans Mayr, who was factory clerk on the *S. Rafael*. For details of these and other narratives see Henry Harrisse's most valuable book *Americus Vespuccius*, to which I am greatly indebted. There is also a description of the voyage (with many lacunæ) by Pero Fernandes Tinoco in a letter to King Manuel printed in *Cartas de Afonso de Albuquerque* ii. 335–41; and a shorter one by Gaspar da India in *Cartas* iii. 200–4. The best account in English is that in Theal's *Beginning of South African History* 165–73.

|| The command of his vessel (the *S. Miguel*?) was thereupon given to Rodrigo Rabelo, a cavalier of the royal household.

¶ Of 14 sail, says Barros.

On 13 September the bulk of the fleet* reached its objective, the island of Anjadiva† on the west coast of India, where King Manuel had ordered a fortress to be built.‡ This work was begun on the 14th; and by the 16th of October, the fort being capable of defence, the viceroy (who had meanwhile been in communication with the Portuguese factors at Cananor, Cochin, and Coulam) left for Onor (Honáwar), which town he destroyed in order to punish the raja for an act of supposed bad faith. On the 18th the fleet sailed for Cananor, which was reached on the 22nd. Here Dom Francisco received an embassy from the king of Narsinga, and, with the permission of the raja, the building of a fortress on the Cananor point was begun. On the 27th the fleet left for Cochin, where it arrived on the 30th, and learnt that, owing to the rash conduct of João Homem, the factor and other Portuguese at Coulam had all been burnt to death by the Moors of Calcut. Consequently the viceroy sent his son Dom Lourenço§ with most of the ships to avenge this murder; but, finding it impossible to land, Dom Lourenço bombarded the town, burnt all the Moorish vessels in the port, and returned

* The missing captains arrived a few days later, except Lucas d'Afonseca, who wintered in Moçambique, and did not reach India until May 1506 (see below), and Lopo Sanches, whose vessel was lost near Cape Correntes, he and most of his company subsequently perishing at sea or on land.

† Off the coast of Kanara, a little south of Karwar (see *Hobson-Jobson* s.v. "Anchediva, Anjediva"). An illustrated description of the island, by Mr. F. J. Varley, I.C.S., appeared in the *Geographical Journal* for April 1904, 491-96.

‡ Cf. A 24, *infra*.

§ Dom Lourenço de Almeida was the viceroy's only son (he had also one daughter, who married twice), and was of great stature and strength, though still under twenty years of age. He was very dexterous with the halberd; and Correa records various instances of his prowess, one of which will be found in the extract B 10 below. His name will always be associated with the "discovery" of Ceylon; and his deeds and early death have been sung in immortal verse by Camoens (*Lusiadas* x. 26-32). A short biographical notice of him, by M. Ferd. Denis, will be found in tom. 2 of the *Nouv. Biog. Gén.* No portrait of Dom Lourenço appears to be extant.

to Cochin. After the return of his son, the viceroy, with great ceremony, presented the new raja of Cochin with a gold crown that had been sent to him by the king of Portugal.

The ships that were to return home now began taking in their cargoes of pepper and other commodities ; and as each was loaded she left for Cananor, where the loading was completed. As the times of the departure of these vessels for Portugal have an important bearing upon the question of the date of the " discovery " of Ceylon by D. Lourenço de Almeida, I have been at some trouble to collate the varying statements of the different authorities. According to Castanheda (ii. cap. xxi.), on 26 November 1505 Fernão Soares left Cochin as captain-major of seven ships (unnamed), the other captains being Bastião de Sousa, Ruy Freire, Manuel Telles, Antão Gonçalves, Diogo Correa, Gonçalo Gil Barbosa, and Diogo Fernandes Correa. These ships were becalmed for three days off Calicut (to the great alarm of its populace, who feared an attack), and then put in to Cananor, whence they sailed on 2 January 1506, and, passing round the outer side of Madagascar, reached Lisbon on 23 May 1506. On the other hand, Barros (I. ix. v.) says that six ships (unnamed) left Cochin during the whole of December 1505, these being divided between two captains-major,* viz., Bastião de Sousa with Manuel Telles and Diogo Fernandes Correa, and Fernão Soares with Diogo Correa and Antão Gonçalves. Of the first three we are told only that they reached home safely ; but to the second three is credited the honour of being the first to discover the southern part of Madagascar;† and the date of their arrival in Portugal is given as 23 May 1506. Correa's statements are a mixture of fact and fiction, his dates being generally untrustworthy. Fortunately we are able, by the aid of contemporary documents, to ascertain the names of most of the ships and the dates of their departure from India and arrival at Lisbon. That one or two left Cochin for Cananor in November is possible, but most of them left the former port for the latter in December and

* See footnote * on p. 295.

† See p. 316, note §.

January, as we learn from a letter to the king from Gaspar Pereira, the chief secretary at Cochin, printed in the *Cartas de Affonso de Albuquerque* ii. 354–69. When they sailed from Cananor, and when they arrived at Lisbon, we know from the narratives of the two Germans mentioned in a footnote above, and from the statements of Italians who were in Portugal when the ships reached home, or had their information from correspondents there. From a comparison of these authorities it would appear that on 2 January 1506 Fernão Soares left Cananor for Portugal in charge of a fleet of five* ships, viz., the *S. Rafael* (commanded by himself), the *S. Jeronimo* (Ruy Freire, captain), the *Botafogo*† (Manuel Telles,‡ captain ?), the *Judia* (Antão Gonçalves, captain), and the *Concepção* (Bastião de Sousa, captain). The first four of these arrived at Rastello on

* In his instructions from the king the viceroy was commanded that as soon as three ships were loaded they were to be dispatched for home under a captain-major, and so with each succeeding three (see *Cartas de Aff. de Alb.* ii. 299). Why five were sent under Fernão Soares does not appear.

† João Serrão, who had come out as captain of this ship, remained in India in command of a galley. Varthema tells us that it was in João Serrão's galley that D. Lourenço sent him to the viceroy at Cochin, and he also mentions the execution wrought amongst the Moors in the sea fight in March 1506 by "a very valiant captain Ioan Sarrano." According to Cor., João Serrão was killed with D. Lourenço at Chaul in January 1508; but it is doubtful if he was even present, and it was probably he who in 1510 was sent by the king to explore Madagascar, and who was so useful to Albuquerque in his expedition to the Red Sea.

‡ Lopo Soares, the historians tell us, before leaving India for Portugal in January 1505, formed a small coastguard fleet under the command of Manuel Telles to remain behind. If, as seems certain, this was the captain-major of the coastguard fleet, he was one of the few Portuguese that escaped the general massacre at Coulam in October 1505 (see above). Regarding his name the historians are at variance. Barros confidently asserts that he was "Manuel Telles Barreto, son of Affonso Telles Barreto," whereas Castanheda calls him "Manuel Telez de Vasconcelos," and Correa "Manuel Telles de Vascogoncellos." That these two writers are correct, and that Barros is wrong, is evident from the fact that (as Barros himself states) Manuel Telles Barreto left Lisbon with Tristão da Cunha's fleet in March or April 1506, while this Manuel Telles did not reach Lisbon until 22 May. This confusion of men with similar names is exemplified in the case of two other captains referred to below (p. 296, note †).

22 May 1506, and the last reached Lisbon on 3 June.* Meanwhile a second fleet of three ships had left Cananor for Portugal on 21 January, viz., the *Lionarda* (Diogo Correa,† captain), another ship the name of which I cannot find‡ (Gonçalo Gil Barbosa,§ captain?), and the *Madalena* (Diogo Fernandes Correa,|| captain). Of these, the first two reached Lisbon on 15 November 1506,¶ but the last, after a de-

* Leon. Ca' Masser, in recording the arrivals of these five ships, says that two were on the king's account, two German (a Florentine, Bartolo, participating), and one of "Fernando dalla Rogna, cristian nuovo." He details their cargoes, and describes the ships as "la nave Capitana del Re," "la nave Concezion del Re," "nave Buonfuogo de marcadanti," "la nave de Ferando [sic] dalla Rogna," and another "nave de marcadanti." There seems to be an error here, as we know that the *S. Rafael* and *S. Jeronimo* were owned by Germans. It is also difficult to know which ship is referred to as "la nave Capitana." From what the writer says elsewhere it would appear that Fernando de Loronha, or Noronha, the "converted" Jew, was a wealthy shipowner doing a large business. (We shall come across him again later on.) According to Harisse (*Amer. Vesp.* 35), Girolamo Priuli, 9 July 1506, on the authority of a letter received from Genoa, refers to the "charavelle che gionseno questo Mazo passato, che forono quatro," and mentions news received that "altre 4 charavelle o ver nave erano gionte in Portogallo a li 26 di Zugno, venute del viazo de l'India," and describes the cargo. The "news" must have grown on the journey, for only one ship, not four, arrived on 26 June.

† All the authorities call this man simply "Diogo Correa," and Cast. and Bar. describe him as son of Frei Payo Correa. He must be distinguished from the Diogo Fernandes Correa mentioned below, and from a Diogo Mendes Correa referred to later on.

‡ It may have been one of those left behind by Lopo Soares.

§ As mentioned above, Cast. alone of the historians names this man among the captains of the homeward fleet. He was factor at Cananor, having been appointed to that office by Vasco da Gama in January 1503. By his instructions from the king, the viceroy was ordered to send this man and Diogo Fernandes Correa (see next note), with their clerks, &c., home by the returning ships, of two of which they were to be given the captaincies (*Cartas de Aff. de Alb.* ii. 326).

|| *Alcaide mór* and factor at Cochin, for which office he had come out in Vasco da Gama's fleet in 1502, when, according to Correa, he commanded the *S. Rafael* (see *Three Voyages of Vasco da Gama* 281). According to Gaspar Pereira's letter to King Manuel in *Cartas de Aff. de Alb.* (p. 369), the king of Cochin was moved to tears at losing Diogo Fernandes.

¶ As we learn from the narrative of Balthazar Sprenger, who was on board the *Lionarda*.

tention at Moçambique, where she had to unload and repair, did not arrive at Lisbon until early in 1507 probably.*

Had the "discovery" of Ceylon taken place before these ships sailed for Portugal? Castanheda alone of the historians says that it had. According to him (see B 8), it was in November 1505 that the viceroy dispatched his son to the Maldives, which failing to reach, he was carried to Ceylon.† Had Dom Francisco so acted, he would have been guilty of a breach of the king's instructions, according to which he was to send out expeditions of discovery *after* the dispatch of the cargo ships for Portugal (see A 19). Castanheda does not give the exact date of Dom Lourenço's return from Ceylon, but leaves us to infer that it occurred at the end of January or beginning of February 1506; and he further states that very soon afterward the viceroy appointed his son captain-major of the sea, and sent him with an armada to visit the fortresses of Cananor and

* These eight ships were, it seems certain, all that the viceroy dispatched as the regular homeward cargo fleet. In the *Diarii di Marino Sanuto* (vi. 363), however, under date 26 June 1506, are given *Memoriale della novelle, che son venute per le quatro nave, che veneno de India e intrarno in Lisbona, veneri, a di 22 de mazo 1506*, which state: "Item: that the said four ships came all very well laden with spices, as much as they could carry, and the others of this company, which are five, remained, at the time that these left, dispatched and loaded for leaving, because our lord the king has ordered that they should come in two sets this year, and they will be here, God willing, very soon. And all these ships are of the company that Don Francesco d'Almeda, viceroy of India, took." It is probable that in the "five" spoken of by the writer are included the two subsequently dispatched (see below).

† It will be noticed that Antonio Galvão (see B 11, *infra*) very cautiously says that it was "at the end of this year [1505], or at the beginning of the next," that the viceroy sent his son to the Maldive islands. As a matter of fact, however, it was neither at the end of 1505 nor at the beginning of 1506 that Dom Lourenço set out, as we shall see presently. If Castanheda's statement had been correct, it would have been confirmed by the viceroy's letter to the king, written from Cochin on 16 December 1505 (see *Alguns Documentos* &c. 142); but this is not the case. From Gaspar Pereira's letter of 18 December 1505-12 January 1506 (*Cartas de Aff. de Alb.* ii. 354-69), it seems that the viceroy sent Lopo Chanoca and Nuno Vaz Pereira in December to the river of Chitua (Chetvai) to prevent the Moorish boats from carrying on trade, and that a severe fight took place off Ponani. This may be the expedition which Castanheda has confused with the one to the Maldives.

Anjadiva and to cruise up and down the Malabar coast in order to prevent the sailing thence of any Moorish vessels with spicery. After thus sending off Dom Lourenço, the viceroy (says Castanheda) in February dispatched João da Nova and Vasco Gomes de Abreu for Portugal in their ships (the *Flor de la mar* and the *S. Gabriel*), in one or other of which he loaded the cinnamon brought by D. Lourenço from Ceylon, sending also by Vasco Gomes as a present to King Manuel an elephant, presumably from Ceylon.* That these two men sailed from India for Portugal in February is confirmed by Barros (I. ix. v.), † and that they carried cinnamon and an elephant is possible; ‡ but these had absolutely no connection with any expedition to Ceylon, none having as yet taken place. Only one of these ships, the *S. Gabriel*, reached Portugal, at the end of 1506 or beginning of 1507; § the *Flor de la mar* was prevented by storms from passing the Cape, and had to put back to Zanzibar,

* Cor. also (see B 10, *infra*) mentions the sending of the elephant, which, he says, was one of two brought from Ceylon by Dom Lourenço; but his statements are not to be depended upon.

† Both Cast. and Bar. write as though their departure took place in an ordinary way; but Cor. (i. 615-18) ascribes it to their dissatisfaction at not being incharged with fleets to cruise at Cape Gardafu and Cape Comorin respectively. I believe that Cor. is, to some extent at least, correct; for these two men had evidently gone out in the expectation of being appointed to some commands at sea or on land (see paragraph in Almeida's instructions, *Cartas de Aff. de Alb.* ii. 330). In his letter of March or April 1506 (*Cartas* iii. 268-76), the king requests that João da Nova be appointed captain-major of the fleet to be left at Malacca, and that Vasco Gomes de Abreu succeed Manuel Paçanha as captain of Anjadiva.

‡ The only thing that we know they did carry was ninety quintals of pepper of unknown ownership found in the fort at Cochín (see *Cartas* ii. 396-97).

§ I cannot find any record of the exact date (Fig. Falcão says "5 May 1508"!). In a letter to the king, dated 22 December 1505, Pedro Ferreira Fogaça, captain of Quiloa, mentions having sent necessaries for the voyage to Vasco Gomes at Moçambique, but no date is given in the summary printed in *Alg. Doc.* 157. However, the *S. Gabriel* must have reached Lisbon not later than the beginning of 1507, for in April of that year Vasco Gomes de Abreu sailed for Sofala to assume the captaincy of that place, an honour he did not long enjoy, a mysterious death soon overtaking him (see Theal's *Beg. of S. A. History* 196-200).

whence, after a stay of eight months, she proceeded to the Angosha islands, and then to Moçambique,* where, in February 1507, Tristão da Cunha found João da Nova,† and annexed him and his ship to his fleet.‡ Had Vasco Gomes de Abreu been the bearer of such important tidings as that Ceylon had been “discovered,” it is certain that King Manuel would not have waited some nine or ten months before informing the pope and college of cardinals of the fact (*cf.* B 3, B 4, *infra*).

However Dom Lourenço de Almeida was employed, therefore, after his return from the punitive expedition to Coulam at the beginning of November 1505 until his appointment in January or February 1506 as captain-major of the sea, we may be sure that he did not visit Ceylon. While engaged in his coastguard and convoy duties Dom Lourenço called at Cananor; and whilst he was at this place there came thither the traveller Ludovico di Varthema,§ who, in the guise of a Muhammadan, had escaped from Calcutt to warn the Portuguese of the great armada that the Samuri had been preparing

* In the *Cartas de Aff. de Alb.* ii. 397–98 is the summary of a letter from João da Nova, dated 5 March 1509 (*sic* for 1507), which begins thus:—“Item: how the viceroy sent him late, and how they did not wish there to allow [him] to serve in the manner that your highness commanded, [so] that he came all in disorder, and how through setting out late he was eight months with the westerlies [blowing] in an island twelve leagues athwart Mombaça. Item: the risks that he passed in the voyage as far as this island, through their taking from him his pilot and giving him another who knew nothing.” (Regarding this last complaint see *Cor.* i. 658, *Alg. Doc.* 157.)

† “Very ill,” says the writer of the *Com. of Af. Dalb.* (i. 33); but he is alone in the assertion, and João da Nova himself does not refer to any illness in his letter quoted above.

‡ “The chief captain” [Tristão da Cunha], says the writer of the *Com. of Af. Dalb.*, “was very glad to see him, for he was a friend of his.” In his letter to the king (*u. s.*) João da Nova explains why he returned with Tristão da Cunha instead of proceeding to Portugal. What became of his ship we shall see later on (p. 317. note).

§ See *Cast.* ii. c. xxiv., *Bar.* I. II. iv., *Travels of Lud. di Varthema* (Hak. Soc.) 271. According to Varthema’s own statement, he arrived at Cananor on Sunday, 6 September, an absurdly incorrect date, since the viceroy’s fleet, as we have seen, did not reach Anjadiva until 13 September: moreover, 6 September 1505 fell on a Saturday. Barros does not give the date; but Castanheda’s statement, that it was in February 1506, is probably correct.

to resist their attacks.* Having sent Varthema to the viceroy in Cochin, Dom Lourenço proceeded to Anjadiva to bring away a brigantine that was there ; and by the time he returned to Cananor other vessels had arrived from Cochin, so that altogether his fleet numbered eleven sail. The armada of Calecut soon after hove in sight, and on the 18th of March ensued a naval battle, or rather slaughter, in which between 3,000 and 4,000 of the enemy were killed or drowned, most of the vessels (from 200 to 300) being sunk, and only a few of the larger ones captured.† This event Dom Lourenço celebrated by founding in Cananor a hermitage dedicated to Our Lady of Victory.‡

Meanwhile the fort at Anjadiva had been in great straits, being besieged by a force from Goa, incited thereto by a renegade Portuguese carpenter. Manuel Paçanha, however, succeeded in holding the fort against the enemy, and dispatched a message to Dom Lourenço, who at once sent succour, whereupon the enemy raised the siege and departed.§

This brings us to the end of March or beginning of April ; and we have now to consider the question, Did the "discovery" of Ceylon take place in April 1506 ? The fact that the chapter in Barros recording this event immediately succeeds that describing the great sea fight would lead one to answer this

* The Portuguese, we may be sure, knew of these preparations already, though Varthema was able to furnish them with fuller information. Barros rightly estimated the character of the man, and tells us that he records in his history only those statements of Varthema's which he had proved to be correct by the testimony of others (see further, regarding Varthema's veracity, under A 18, *infra*).

† See Cast. ii. c. xxvi., Bar. I. x. iv., Varthema 274-80. Cor. (i. 595-605), by a most extraordinary blunder, describes this fight as taking place just after the viceroy had left Cananor for Cochin in October 1505 ; and he names as taking part in it men who had already left India or had not yet arrived there. Although the Portuguese historians speak of the glorious victory achieved by Dom Lourenço's fleet, and King Manuel, in his letter to the pope and cardinals (see B 3, B 4), makes much of it, the affair was, as Whiteway says (*Rise of Port. Power in India* 109), a mere massacre, with very little real fighting.

‡ This house is referred to by the viceroy in his letter of 27 December 1506, to the king (*Cartas de Aff. de Alb.* ii. 391).

§ This is according to Bar. (I. x. iv.). Cast. says nothing of a siege of Anjadiva at this time, but records one later (see below, p. 312). Cor. ii. 584-87 makes the siege take place in October 1505 !

question in the affirmative. But Barros gives no dates throughout the chapter, which occurs as an isolated fragment of history, unconnected with what precedes or follows it. Moreover, it is very unlikely that an exploring expedition to the Maldives and Ceylon would have been sent out in April, when the south-west monsoon was due to set in in May.* Other and fatal objections to this supposition will be mentioned below. We may therefore consider it probable that April was spent by Dom Lourenço in coastguard and convoy work.

With the setting in of the south-west monsoon (or “winter,”† as the Portuguese termed it) all sea traffic on the west coast of India would practically cease for a period of three or four months, so that no expedition could have left Cochin before August at the earliest. The rainy months in Cochin were spent, according to Castanheda (ii. c. xxviii.), in pushing on the building of the fort, the foundations of which had been laid some months before.‡

* Bar. distinctly says that the viceroy dispatched Dom Lourenço on this expedition when it was “the monsoon weather for that passage” (see B 9, *infra*). On this subject see further on (pp. 307–8).

† See *Hobson-Jobson* under this word.

‡ According to Cast. (ii. c. xviii.) the foundations had been secretly laid by the factor Diogo Fernandes Correa before the arrival of the viceroy; but Cor. (i. 625–42) gives a long and circumstantial account of how the viceroy gained the unwilling consent of the king of Cochin to the erection of a fortress, and describes how the viceroy with great ceremony turned the first shovelful on 3 May 1506. Cor. gave a drawing of the fortress (which has perished with the original manuscript of his first volume), and says that the completion of the work was effected with great difficulty, owing to its being “a winter of many rains and tempests.” Whatever truth there may be in Correa’s account, his date, at least, is quite wrong, for from Gaspar Pereira’s letter already cited we learn that in December 1505 the building of the fort was actively proceeding, the viceroy and all the captains and *fidalgos* taking their share in the manual labour (*Cartas de Aff. de Alb.* ii. 355). When the fortress was finished, I do not know; but it was not by the end of 1506, for in the summary of the viceroy’s letter of 27 December 1506, where the various forts are referred to, we read: “That of Cochy iii^e finished,” where “iii^e” evidently stands for *tres coartos* = three-fourths, though the editors of the *Cartas* interpret it as “three hundred,” which is unintelligible (*Cartas de Aff. de Alb.* ii. 395). It was probably completed in 1507 (see the viceroy’s letter in Cor. i. 908). Correa’s account of the completion (i. 641–42) is either fiction or is anachronous.

Not long after the monsoon had set in there arrived at Anjadiva from Sofala, by way of Quiloa and Melinde, four ships, the captains of which were Pero Barreto de Magalhães, his cousin Payo de Sousa, Jorge Mendes Çacoto, and Lucas d'Affonseca, the first three of whom had left Portugal with Pero da Nhaya in May 1505,* and the last had, as we have seen, formed one of the captains of caravels in D. Francisco de Almeida's fleet. Pero Barreto, Payo de Sousa, and Jorge Mendes were afraid to venture further in the teeth of the monsoon; but Lucas d'Affonseca, whose ship was larger, managed to reach Cochin, bringing with him a number of persons from the other three vessels.† Now if, as Barros confidently states (see B 9), Payo de Sousa‡ was the ambassador sent to the Siphalese king by Dom Lourenço when he visited Ceylon, it is evident that the "discovery" of that island could not have taken place before May 1506.§

Towards the close of the "winter" there arrived at Cochin, in August 1506,|| the ship *Julioa*,¶ commanded by Cide Barbudo, who, together with Pero Quaresma, had left Portugal on 19 November 1505,** to take supplies to Sofala and to

* See Theal's *Beg. of S. A. History* 183-87.

† I follow Cast. ii. p. 92, where in line 8 "Pero de Sousa" is an evident error.

‡ He seems to be the "Payo Rodrigues de Sousa" of whom we read later on as commanding a galley (*cf.* Cast. ii. c. 118 and Cor. i. 899), and who was killed in December 1508 while accompanying the vice-roy's expedition against the Turks (Cast. ii. c. xcv., Bar. II. III. v.).

§ This objection is equally valid if the envoy were Fernão Cotrim, as I shall show later on (p. 310. note ‡).

|| Cast. (ii. c. xxxii.) says it was after the setting in of the "summer" in September, but this is incorrect.

¶ The name of Cide Barbudo's ship is nowhere mentioned; but I infer it to have been this vessel from a passage in the letter of Gaspar da India mentioned below, which runs: "Sire, when the ship *Julyoa* arrived she brought news of your highness to Dom Francisco Dalmeida" (*Cartas* ii. 377). According to Bar. (I. vi. iii.) the *Julioa* formed one of the fleet of 1502 under Vasco da Gama, she being then commanded by Lopo Mendes de Vasconcellos, who also accompanied Lopo Soares to India in 1504, perhaps in the same ship.

** See Ca' Masser 21; *Alg. Doc.* 147-49, where is printed a letter from Pero Quaresma, dated Moçambique, 31 August 1506, giving a description of the voyage and events on the east coast of Africa (see

search along the South African coast for the crew of Pero de Mendonça's wrecked vessel and for the one in which Francisco de Albuquerque had sailed from India in 1504, and which had never been heard of again. On reaching Sofala in June 1506 these two men found the place in the last extremity, the captain, Pero da Nhaya, the magistrate and seventy-six soldiers being dead of fever, and the provisions almost exhausted. Having relieved the fort and left Pero Quaresma with the caravel, Cide Barbudo proceeded to Quiloa, and thence set sail for India to convey to the viceroy the news regarding Sofala and Quiloa, and to deliver to him a letter from the king.* This document no longer exists, apparently, but from the letter of Gaspar da India printed in *Cartas* ii. 371-80 we learn (see 377) that in it Dom Manuel urged upon his viceroy the expediency of establishing a direct trade with Malacca.† Accordingly, on the 22nd of August, Francisco Pereira‡ and Estevão de Vilhena.§ with Gaspar da India's

also Theal's *Beg. of S. A. History* 192-94). In *Cartas* ii. 345-54 are printed the royal instructions given to Cide Barbudo for his voyage.

* See *Cartas* ii. 354, iii. 269; *Alg. Doc.* 170. Cf. also *alvará* of 25 August 1506, issued in Cochin by the viceroy apparently in conformity with instructions received from the king through Cide Barbudo.

† In his letter of March or April 1506, to the viceroy, the king says (*Cartas* iii. 269): "Item: By Cide Barbudo we have written to you enjoining upon you that, if you have not yet sent ships to Malacca, according as we enjoined upon you in your instructions, you send them, if the weather give you the opportunity therefor, and if it can be done without hindrance to the matters of our service in those parts of India; because there had appeared here a threat of a certain armada from Castille, which it was notified to us was getting ready in order, this summer, to go in search of the said Malacca, making doubtful if it is within our limits; and that, in order that possession might be taken first by us, which, in these matters, gives much right besides that which we believe we have to it, as also because of its being such an important thing in those parts, and of such wealth and profit as is hoped, we should be glad of its being so done." (Then comes the order to go in person, &c., as mentioned below.)

‡ This is probably the "Francisco Pereyra Coutinho" mentioned by Cast. (ii. c. xxxiii.), and the "Francisco Pereira, captain of the ship *Victoria*," spoken of by Bar. (II. i. iv.).

§ Among those killed with D. Lourenço de Almeida in his ship at Chaul in March 1508, Bar. (II. ii. viii.) names "Estevão de Vilhena of Setubal, knight of the king's guard, who was captain of the poop."

son* as interpreter, left Cochin in a vessel belonging to Nine Mercar,† and, keeping north of Ceylon, proceeded to the port of “Cholomender,” between which and Malacca there was then a regular trade.‡ The mission was a failure, however; and, having to escape for their lives, the Portuguese took refuge at “Conymate,”§ whence they returned to Cochin on 8 November 1506.||

* His name was Baltesar (see B 1, *infra*). In a letter from Gaspar da India printed in *Cartas* iii. 197, and written apparently in December 1507, the king's favour is begged for this Baltesar, whom his father describes as a young man of 28, as good a man as himself (!), and acquainted with more languages.

† See A 13, *infra*. He was now resident in Cochin.

‡ See A 18 and B 2. *infra*.

§ The editors of the *Cartas* put a query after this name. Gaspar da India describes “Conymate” as “a port. . . . on the other side of Cholomender, as far in advance as Ceylão,” which seems to show that Conimere, between Pondicherry and Madras, is meant (see *Hobson-Jobson* s. vv. “Canhameira, Conimere”); though it is quite possible that the place where the Portuguese lay *perdus* was Adampatam near Point Calimere. (*Cf.* Bar. I. ix. i., where Conimere is called *Conhameira*, and Cape Calimere *Canhameira*, a fact that seems to have been overlooked by Yule, who does not register “Calimere” in his valuable book. See also Bar. IV. viii. xiii.)

|| This expedition and its failure are referred to by the viceroy in his letter to the king of 27 December 1506, from which it appears that Dom Manuel had requested or advised that Cide Barbudo should be sent to Malacca. The summary (*Cartas* ii. 391) reads:—“Item: the cause why he did not send Cyde Barbudo to Malaca, and how Francisco Pereira went in the ships of the Moors, and what passed in Charomondel, and how he escaped and returned. Item: that Malacca must not be discovered on rounding the Cape of Good Hope, and he says that there [Charomondel] will be had the things thereof and cheaper, and that by that coast must go whoever shall go there.” The “cause why he did not send Cyde Barbudo” to Malacca does not appear: but it was probably connected with the state of affairs at Sofala and the non-arrival of the cargo fleet from Portugal. As to the route to be taken by the person sent to “discover” Malacca, it will be seen from the document given below (A 21) that, when Dom Francisco wrote this, a letter was already on its way to him from the king, in which he was commanded to go in person to Malacca and erect a fortress there. Why this command was not obeyed is explained by Dom Francisco in his long letter to the king, written at the end of 1508, in which he says (Cor. i. 907):—“As to your commanding me to occupy

Meanwhile the secretary at Cochin, Gaspar Pereira, accompanied by Gaspar da India, was sent by the viceroy to the various Portuguese settlements at the Malabar ports to inquire regarding reported illicit trading.* They left Cochin in the *S. Miguel*, captain Rodrigo Rabello, on 1 September;† and after visiting Cananor‡ and other ports arrived at Batecala§ on the 28th, returning on the 20th of October to Cananor, and thence to Cochin.

The "summer" season had now set in; and the Portuguese ships, having been refitted, were once more ready to put to sea. Tidings seem to have reached the viceroy that in spite of all his efforts the Moors continued to carry on their trade between Malacca and the Red Sea and Persian Gulf, their vessels now avoiding the Malabar coast and taking their course

myself with the affairs of Malaca, if your highness were well informed of me, and of what I am doing here, you would neglect to remind me of it. Let us destroy these new folk [Venetians and Turks], and settle the old ones, and the natives of this country and coast, and then let us go and see new lands, and all will be done there in so far as this field shall be ours, so that they will offer them to us [?]: because from here to Malaca is a separate monsoon and limited seasons, adverse the one to the other." By 1508, however, the king had again changed his mind, and, in sending Diogo Lopes de Sequeira to "discover" Malacca, ordered him to go thither from Madagascar by way of the Maldives and Ceylon (see C 2. *infra*).

* This is one of the matters referred to in the *alvará* of 25 August 1506, mentioned above.

† So says Gaspar da India in his letter (*Cartas* ii. 373); but in *Cartas* ii. 371 is printed a license of the viceroy's addressed to Gaspar Pereira, permitting "the people of this armada" (what "armada" is meant, I cannot say) to sell their cargo shares; and as this is dated at Cochin, 2 September 1506, Gaspar Pereira could not have left on the 1st.

‡ It is probable that Varthema went by this ship to Cananor (see Hak. Soc. Varthema 280-81). He says that the viceroy gave him "the factorship of these parts," an office which he held for "about a year and a half." I can find no confirmation of his statement, which is probably a characteristic piece of exaggeration. More to our purpose, however, is the fact that he says not a word about the "discovery" of Ceylon—doubtless, because he took no part in it.

§ Bhatkal on the Kanara coast (see *Hobson-Jobson* s.v. "Bateul"). At this time the viceroy was endeavouring to arrange for a Portuguese factory at this port (see *Cartas* ii. 335, 393). The place is referred to by Albuquerque in a letter of 1512 quoted *infra* (C 9).

by the Maldive islands.* Determined to prevent this,† and desirous at the same time to get information regarding the Maldives‡ and “discover” Ceylon,§ Dom Francisco de Almeida in August incharged his son Dom Lourenço with this expedition. Accordingly, at the end of August or beginning of September|| 1506, Dom Lourenço set sail with a number of vessels selected from the armada of which he was captain-major. The exact number of vessels and the names of their captains are uncertain, the historians differing widely on these points.¶ That Lopo

* All three historians mention this fact (see *infra*, B 8, B 9, B 10), only they differ as to the date when the viceroy took steps to stop this traffic.

† It will be seen from the extracts from the viceroy's letters given below (B 2, C 5) that one of his chief reasons for desiring to have a fortress in Ceylon was to block this route to the Moors. It was not, however, until after Albuquerque captured Malacca and erected a fortress there that the traffic ceased (see C 10, *infra*, and cf. the viceroy's statement to the king in 1508 (Cor. i. 907)).

‡ On the history of the Maldives before and after the Portuguese came to India, see Gray's *Pyrard* (Hak. Soc.) ii. 423 *et seq.* In his instructions of 1505 to D. Francisco de Almeida the king does not mention these islands; but in his letter of March or April 1506 (see *infra*, A 21) he refers to them as “the archipelago of the twelve thousand islands,” and urges upon the viceroy the importance of finding them. Whether Dom Manuel had expressed any similar wish in his letter sent by Cide Barbudo (see above), or whether the viceroy acted on his own initiative, I do not know; but in his letter of 27 December 1506 (see *infra*, B 2) he informed the king “how he sent Dom Lourenço to the islands of Maldiva and Quymdiquel.” In the instructions given to Diogo Lopes de Sequeira in February 1508 (see *infra*, C 2), the king, it will be noticed, says: “.....when you shall take your course for Ceillam, you shall endeavour to take your course by the island of Camdaluz or by Maldiva, which we shall be glad to have discovered.” “Discovered” the islands were in a very few years, to become, as Mr. Gray says (*op. cit.* 475), “the hunting ground of Portuguese pirates.”

§ As he had been commanded by the royal instructions (see A 19, *infra*).

|| See *infra*, B 1 and notes 4 and 5.

¶ Cast. (see B 8) writes as if only three vessels went, viz., that of Felipe Rodrigues (the *Esphera* ?) with Dom Lourenço on board and those of Lopo Chanoca and Nuno Vaz Pereira; Bar. (see B 9) says that Dom Lourenço took nine sail of those that he had in his armada, but mentions the name of only one captain, Nuno Vaz Pereira; while Cor. (see B 10) is, characteristically, very explicit, telling us that Dom Lourenço went

Chanoca* and Nuno Vaz Pereira† were amongst the captains appears certain, however.‡

That Dom Francisco should have supposed that at the end of the south-west monsoon sailing vessels from the Malabar coast could make the Maldives displays a strange ignorance on his part of the navigation of the Indian Ocean ;§ and it is stranger still that no one at Cochin seems to have warned him

in a good ship captained by Lopo Cabral, and Manuel Telles in another, Gonçalo de Paiva and Pero Rafael in caravels, André da Silveira in a galley, and André Galo in a newly made brigantine, and that these vessels carried some three hundred men. Unfortunate y, as Theal says (*Beg of S. A. History* 156), Correa was, "with respect to events previous to the government of Affonso d'Albuquerque," "a novelist rather than a historian," and "neither his statements nor his dates are to be relied upon."

* This man, as we have seen, was one of the captains of caravels in the fleet of Dom Lourenço de Almeida in 1505. He and Nuno Vaz Pereira are referred to several times by Gaspar Pereira in his letter of December 1505-January 1506, as being sent on expeditions along the coast. It will be seen from B 2 that his temper cost him his command.

† As mentioned above, when João Homem was deprived of his command, his caravel, the *S. Jorge*, was given to this man, whom Cast. describes as "a valiant knight, and judicious." We shall hear more of him later (see p. 313).

‡ My reasons for supposing this are as follows :—(1) Cast. mentions them as accompanying Dom Lourenço on his expedition ; (2) Bar. mentions Nuno Vaz as one of the captains who accompanied Dom Lourenço ; (3) the sequence of the paragraphs in the viceroy's letter of 27 December 1506 (see B 2) seems to imply that it was on his return from Ceylon that Lopo Chanoca was deprived of the command of his caravel, and that he was sent back to Ceylon in the ship *Santo Espírito* ; (4) from the extracts C 3, C 4, C 5, it will be seen that in September 1508 Nuno Vaz Pereira was sent by the viceroy in this same ship to Ceylon to get the tribute cinnamon.

§ Lieut. Brown says (*Handbook to the Ports on the Coast of India* 115) :— "The foreign traders from Chittagong, Malabar, Maskat, and elsewhere, generally arrive and leave between January and May. The boats for Calcutta and Chittagong, belonging to the islands, usually leave in September, and return in December and January." Bell says (*Maldiv Islands* 102) :— "The foreign traders call regularly, generally arriving about March, and leaving with the south-west monsoon in July or August. The part of the trade which is conducted by the natives themselves is carried on chiefly with Calcutta, [Madras and Ceylon] in boats of from 100 to 200 tons burthen, which leave for the coast late in August or early in September, annually, having the

of the futility of the attempt.* As might be expected, the expeditionary fleet, as soon as it got out to sea, was driven by the wind and currents† in a south-easterly direction, and made landfall at the port of Columbo on the west coast of Ceylon. It is true that of the three historians Correa alone, a not very trustworthy authority, mentions Columbo as the port into which Dom Lourenço put, Castanheda and Barros asserting that the port was that of Gale.‡ But we have seen that Castanheda is utterly wrong with regard to the date of the "discovery" of Ceylon; and Barros, with a curious lack of consistency, in a later passage of his history (see C 3) confirms

south-west monsoon in their favour, and return in December and January with the north-east monsoon." And yet, as we have seen, Barros says (see B 9) that the viceroy sent his son when he did "because of its being the monsoon weather [or season] for that passage." The Portuguese learnt by experience: for when Diogo Lopes de Sequeira in 1519 dispatched João Gomes Cheiradinheiro to build a fort at the Maldives he sent him off in January apparently. And we find Alvaro Fernandez, in writing to the king in 1520 about the islands, saying (*Alg. Doc.* 452): ".....the monsoon season, which is from December until the end of March, excepting those [goods] from Malabar, which go sooner to the islands, on account of being so close."

* Cast. (see B 8) ascribes the failure of the ships to reach the Maldives to the inexperience of the pilots: Bar. (see B 9) to that of the Portuguese themselves, "although they took with them some natives;" and Cor. (see B 10) to the carelessness of the pilots, although he had previously described these men as "good pilots supplied by the king of Cochym." How the viceroy accounted for the failure in writing to the king we do not know, for, of the paragraph dealing with the expedition in Dom Francisco's letter of 27 December 1506 (see B 2), all that remains to us is the uninforming summary, "Item: how he sent Dom Lourenço to the islands of Maldiva and Quymdiquel."

† Regarding the treacherous nature of the monsoon winds and the currents between the Maldives and the coast of India and Ceylon, see Pyrrard (*Hak. Soc.*) i. 257, 280.

‡ Cast. says "the port of Gabaliquamma, which our people now call the port of Gale." On "Gabaliquamma" see note 27 to C 22. In his fourth book, chap. xlii., Cast. again writes "Gale, where on a former occasion Dom Lourenço Dalmeida made landfall, as I have said." In view of the almost absolute certainty that Columbo was the port at which Dom Lourenço arrived, it is difficult to understand how Cast. and Bar. were misled as to this, and further as to the identity of the person who they say played the part of king (see below).

the correctness of Correa's statement, which is also corroborated by the *Rājāvaliya* (see B 14, B 15) and by current native tradition (see B 13).

In the port* were a number of vessels of Moors from Cambay, loading cinnamon and elephants†: these, by Dom Lourenço's orders, were not interfered with.‡ Word of the arrival of the Portuguese having reached the king§ at Cota, he at once dispatched a messenger to Dom Lourenço offering to enter into an agreement of peace and amity with the Portuguese. To carry this into effect an embassy was sent by Dom Lourenço to Cota.|| In regard to the ambassador the three historians are strangely at variance. Castanheda (see B 8) says that he

* Though we have no picture of the port of Columbo as it was when the first Portuguese entered it, we are able to form a very good idea of its appearance from Correa's drawing showing the first fortress erected by Lopo Soares in 1518 (Cor. ii. 541), as it cannot have changed much in the twelve years. From that sketch (reproduced below, p. 319) it is evident that the ancient and notable town or city of Kolontota or Kolompura or Kolañiba (the Kalanbū of Ibn Batūta in 1345) was in 1506 almost entirely hidden from view by the dense groves of coco palms and other trees. It is probable that Dom Lourenço and his companions saw little or nothing of the town, and may possibly have been unaware of its existence. The earliest mention of it by a Portuguese writer that I know of is that by Barbosa given below (C 22).

† Barbosa, it will be seen (C 22), distinctly states that it was from *Columbo* that the Moorish vessels carried cinnamon and elephants to Cambay and other parts: Galle, therefore, could not have been the port into which Dom Lourenço put.

‡ From what Couto (B 12) and the *Rājāvaliya* (B 15) say, it would appear that the Portuguese indulged in some firing of cannon on entering the port—with the object of intimidating the natives, probably.

§ According to the *Rājāvaliya* (B 14, B 15) this was Dharma Parākrama Báhu IX.; but from an inscription at Kelani we know that this king's reign began in 1508. From an inscription at Dondra we also know that Vijaya Báhu VII. assumed regal power in 1505. Either, therefore, the *Rājāvaliya* is in error, or else Dharma Parākrama Báhu, though ruling at Kótté, had not yet been generally recognized as king. (On this very obscure historical problem see Bell's *Rep. on the Kegalla Dist.* 85–86.)

|| In describing the negotiations carried on between Dom Lourenço and the Sinhalese king, Correa, it will be seen, allows his imagination to run riot.

was "a knight called Fernão Cotrim," and he mentions no one else ; while Barros (see B 9) asserts that it was " Payo de Sousa* who went in the capacity of ambassador, and for his clerk Gaspar Diaz, son of Martin Alho, a resident of Lisbon, and Diogo Velho, a servant of Dom Martinho de Castello Branco, the king's comptroller of revenue, who afterwards became conde de Villanova, and one Fernam Cotrim, and other persons of his service ;" and Correa, to increase the confusion, states (see B 10) that the Portuguese convoy was "Diogo d'Almeida,† a nobleman," and that "a certain Fernão Cotrim" was sent to the king later on a different errand. At any rate we may consider it certain that Fernão Cotrim ‡ did go in some capacity. The envoys, according to Barros (B 9), "were conducted through such dense thickets that they could scarcely see the sun, taking so many turns that it seemed to them more like a labyrinth than a direct road to any place." It is a very interesting fact that this statement is confirmed by the Sinhalese proverb, "*Parangiyá Kóttétavagé*," "Like the Portuguese going to Kótté," applied to a long and circuitous path, and referring to the means adopted by the Sinhalese to conceal from the Portuguese the proximity of the capital to the port of Colombo (see B 13).

At length the destination was reached,§ and after the usual delay the ambassador was ushered into the royal presence.

* Regarding this man see *supra*, p. 302, note †.

† Correa alone mentions this man, who, from his name, would appear to have been a connection of the viceroy's. But he may be a creation of Correa's.

‡ According to Barros (I. viii. vii.), when, as related above, Pero Ferreira Fogaça was left at Quiloa as captain, Fernão Cotrim was also left there as factor. If, therefore, he accompanied Dom Lourenço's expedition to Ceylon, he must have come to India by one of the ships under Pero Barreto de Magalhães, or later with Cide Barbudo. In either case his presence in the expedition proves that it could not have taken place before August or September 1506.

§ The Portuguese envoys do not seem to have been taken into the royal city itself, but to have been received by the king at some place in the vicinity. Barros (B 9) says that it was "a kind of country-seat" of the king's, whither "he had come to take his pleasure."

What the king was like, we are not told ; but Castanheda, quoting from Dom Manuel's letter to the pope (*cf.* B 8 with B 3), gives us a minute description of the king's dress and his surroundings, which were evidently intended to impress the western strangers.* The Portuguese envoy was accorded a favourable reception ; and a treaty of mutual friendship and trade was entered into,† subject to ratification by the viceroy, the king agreeing to pay to the king of Portugal an annual tribute of one hundred and fifty quintals of cinnamon,‡ the first year's contribution being then and there delivered to Dom Lourenço. The latter thereupon, with the king's consent.§ and as a memorial of his "discovery" of Ceylon, erected upon a rock overlooking the sea|| a stone *padrão* or pillar having the arms of Portugal on one side and the device of the sphere on the other,

* The reception by candle-light is characteristic. Down to British times the Kandyan kings were accustomed to receive European envoys in the night-time (*cf.* Pybus's *Mission* 79, Hugh Boyd's *Embassy to Candy* 213, Percival's *Ceylon* 404).

† Correa's statements as to the writing of the treaty on a slip of silver, &c., I look upon as fiction : in fact, I doubt if there was anything more than a verbal agreement : at any rate no copy even of any treaty now exists (see J. F. Judice Biker's *Collecção de Tratados*, preamb. vii.).

‡ So Cast. (B 8), following the royal letter (B 3). According to Bar. (B 9) it was the Moors who gave four hundred bahars of cinnamon to Dom Lourenço in the king's name. Cor. (B 10) has it that the Singhalese king agreed to pay a yearly tribute of a shipload of cinnamon and two elephants (Cast. mentions two elephants later). Finally, Gaspar da India (B 1) makes Dom Lourenço say that he brought from Ceylon two hundred and fifty cruzados' worth of cinnamon (with no mention of elephants). On these various statements see note * to B 1.

§ So Cast. says. Cor. would have us believe that the king not only gave his willing consent to the erection of this *padrão*, but expressed the desire to have one in each of his ports. According to Bar., Dom Lourenço did not wait for the king's permission, but got together some of the Singhalese, and with their approval set up the stone. The details he gives in connection therewith seem to be authentic.

|| I think that Cor. is right in his description of the spot where the *padrão* was set up ; for we know that on the coast of Africa conspicuous points were chosen on which to erect these pillars. Cast. simply says that the *padrão* was erected "on the shore," and Bar. only says "on a rock."

the pillar being surmounted by the cross of Christus.* The armada then set sail for Cochin,† where it arrived‡ before the end of September.§ The viceroy was doubtless highly gratified at the news of his son's "discovery,"|| and forthwith dispatched Lopo Chanoca in the *Santo Sprito* to Ceylon to obtain a cargo of cinnamon, and to erect a fortress at Columbo.¶

Dom Lourenço and his fleet appear to have now resumed their coastguard duty; but very soon a message reached the viceroy from Manuel Páçanha, captain of Anjadiva, that during the "winter" he had again been besieged by the Moors, who had obliged him to burn a brigantine and the ships that had wintered there.** It was thereupon decided in council

* The statements of Cast. and Cor. on this point are borne out by the letter of the viceroy (B 2). Bar. gives no description of the *padrão*, but tells us that Dom Lourenço got the stone-cutter Gonçalo Gonçalves to cut on it a short statement of the cause of its erection. The *padrão* had evidently been brought from Cochin to be erected at the Maldives or Ceylon. (I give opposite a plate showing the probable form of the pillar.)

† Cor., with his love of the marvellous, and to glorify his hero Dom Lourenço, relates the slaying of a monster in a cave. Bar. alone records the interesting incident of Nuno Vaz Pereira and the fire-blackened *padrão*.

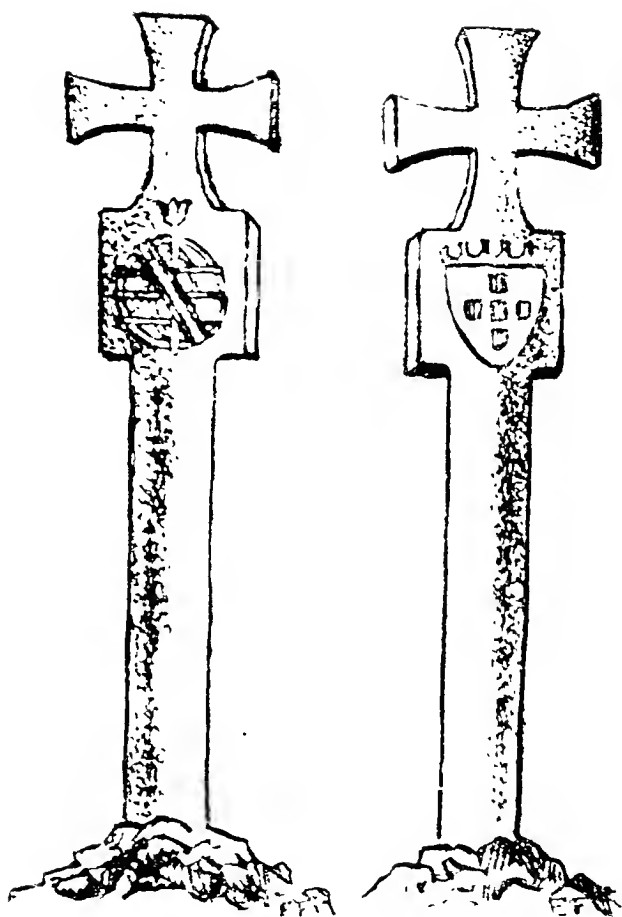
‡ Cast. says that Dom Lourenço "on the way captured several Moorish ships;" but Bar. records a punitive attack by the Portuguese armada on the village of Berinjam, which was burnt.

§ It must have been before the end of September, because, according to the viceroy's letter (B 2), Lopo Chanoca "left for Ceylão at the end of September."

|| Bar. says not a word about the reception of the news. According to Cast. the viceroy "was greatly pleased with the cinnamon, to be able to send it to Portugal." Cor., as might be expected, is equal to the occasion; and though what he tells us may not be absolutely true, it probably very nearly approximates to the truth.

¶ See B 2. I confess that this passage in the summary of the viceroy's letter puzzles me. The statements in it are not borne out by any of the historians; and if it be true that the viceroy dispatched Lopo Chanoca to Ceylon not only to get cinnamon but to erect a fortress, which he hoped to complete in a month's time, it is strange that nowhere else is this fact mentioned. Certain it is that no fortress was erected then, nor for twelve years after, as we shall see. Perhaps the summarist has misinterpreted the viceroy's words.

** This is according to Cast. (ii. c. xxxii.). As we have seen above, Bar. has it that Anjadiva was besieged in March, and says nothing of a later siege. I am unable to say if there were two sieges, or if both historians refer to the same event.



PROBABLE FORM OF PADRÃO ERECTED AT COLUMBO IN 1506
BY DOM LOURENÇO DE ALMEIDA.

Founded on sketch of Cão's Padrão at Cape Cross (in "First Voyage of Vasco da
Gama" 169), and descriptions of writers quoted in "First
Discovery of Ceylon by the Portuguese."

to demolish the fort at Anjadiva and abandon the island; and Dom Lourenço was dispatched thither to effect the demolition and bring away the Portuguese who were there.*

Meanwhile the viceroy had been making arrangements for supplying Sofala with a new staff of officials; and at the end of October or beginning of November Nuno Vaz Pereira sailed in the ship of Gonçalo Vaz de Goes for Sofala, to act as captain and empowered to settle the disputes at Quiloa, another ship accompanying him, the captain of which was his nephew Duarte de Mello de Serpa, in one or other of which vessels went a number of persons in official capacities or as friends of Nuno Vaz.†

On the 17th of November, it would appear from the letter of Gaspar da India already referred to,‡ Dom Lourenço left Cochin with an armada of six ships, two galleys, and a brigantine for Ormuz to compel the ruler of that island to become a vassal to the king of Portugal. All the historians, however,

* When exactly this dismantling took place, I cannot find. Bar. (I. x. iv.), after relating the siege of Anjadiva in March 1506, and its relief by Dom Lourenço, states that on his return to Cochin the latter reported to his father the risk that the fort would run during the coming "winter" owing to its proximity to Goa and its distance from Cochin, and adds that "for these reasons, and others important to the service of the king, it was a little while after that dismantled." Cast. (ii. c. xxxii.) implies that the demolition was effected at once, in October apparently. Cor. (i. 708), with characteristic inaccuracy, makes Tristão da Cunha, arriving at Anjadiva from Socotra in August 1507, the bearer of the news that the king had sent orders for the demolition of the fortress; a statement which he repeats further on (714), when he tells us of the viceroy's determining (in September 1507) to go and carry out the work; and later (727) he records the demolition, apparently in December 1507! That the dismantling of the fortress took place before the end of 1506, we know for certain: since the viceroy, in his letter of 27 December 1506, informed the king of the fact (see *Cartas* ii. 391, 395; also Cor. i. 908).

† See Theal's *Beg. of S. A. History* 194-95; *Cartas* 391, 394-95. (At the last reference there is a quaint copyist's error, "no vaam" for "n° vaaz.")

‡ *Cartas* ii. 379-80. In view of the disreputable character of the writer, we might be inclined to regard his statements regarding this expedition as fiction, were it not that in the summary of the viceroy's letter of 27 December 1506 (*Cartas* ii. 393) occurs the sentence,

are silent regarding this expedition: and it seems certain that Dom Lourenço never did visit Ormuz.

The non-arrival in India of any of the ships that had left Portugal in the early part of the year* caused the viceroy and the rest of the Portuguese in those parts much annoyance and some anxiety, the Moors being correspondingly elated.† Desirous of informing King Manuel of Dom Lourenço's victory

curiously interposed between two paragraphs relating to the "discovery" of Ceylon: "Item: how Dom Lourenço went to Armuz;" and in the summary of a letter of 6 February 1507, from Affonso de Albuquerque to the king (*Cartas* i. 416), we read: "Item: regarding the coming of Dom Lourenço to Ormuz and the ships of his captaincy divided up." It is very probable that the viceroy, having received intelligence of the probable visit of Affonso de Albuquerque to Ormuz, was desirous of forestalling him and of adding to his son's laurels. Whatever the object, however, the plan was, for some cause unknown to me, frustrated.

* These were the two fleets under Tristão da Cunha and Affonso de Albuquerque which sailed from Lisbon in March or April 1506 (the authorities are divided as to the month). Regarding the doings of these ships see Morse Stephens's *Albuquerque* 49 *et seq.* Whiteway's *Rise of Port. Power in India* 112 *et seq.*, and especially the *Com. of Af. Dalb.* i. 20 *et seq.* The cause of the non-appearance in India of any of these ships was their late arrival at Moçambique owing to storms. Whiteway (*op. cit.* 113) says that they did not reach this place until December, which, although having the authority of Castanheda, is certainly wrong. A comparison of the narrative of events in the *Com.* with the letter of Albuquerque in *Cartas* i. 1-6 shows that it was probably in October that the ships arrived at Moçambique. In any case it was too late for them to pass over to India; so they had perforce to winter on the African coast. We shall return to them again.

† A paragraph of the summary of the viceroy's letter of 27 December 1506 runs as follows (*Cartas* i. 391): "Item: that he had ready for loading four hundred quintals, and many things of those that come from Malaca, and that they were much embarrassed by the non-arrival of the armada, and the Moors very joyful." Gaspar da India also, at the beginning of his letter of 16 November 1506 (*Cartas* ii. 371), tells the king: "We are much troubled by reason that no ship of the fleet has come this year, and the Moors are strengthening themselves along the whole coast against us." Barros (II. i. iv.) tells the same story at greater length, and states that the minds of the Portuguese were still further exercised by the occurrence, on Wednesday, 13 January 1506, of an eclipse of the sun, which lasted from 11 A.M. to 2.30 P.M., and on 15 July 1507 of a severe earthquake, lasting for an hour with some intervals.

over the Calicut armada, and of his "discovery" of Ceylon, the viceroy at the end of December* dispatched Cide Barbudo in his ship, the *Julioa*,† *viâ* Cananor for Portugal. By him Dom Francisco sent a long letter to the king,‡ recording the events of the year since February, when Vasco Gomes de Abreu and João da Nova sailed, and doubtless some cargo, including the tribute cinnamon from Ceylon. Cide Barbudo left Cananor probably in January§ 1507; and, although his voyage is not recorded by any of the historians,|| we have good grounds for supposing that he reached Lisbon in

* I infer this from the date of the viceroy's letter (27 December).

† I have no certain proof of this; but it is most probable.

‡ This is the letter already frequently referred to, a summary of which is printed in *Cartas* ii. 391-97. It occurs in a document in the Torre do Tombo at Lisbon, entitled "Summary of all the letters that came from India to our lord the king, and of other messages that likewise came in the ships of which there came as captain-major Antonio de Saldanha, and in the ship of Cide Barbudo, who came after him." The letters themselves are, unfortunately, for the most part lost, which is the more vexatious in that the summarist has in some places evidently misinterpreted the original. Although the summarist has mixed up the two batches of letters referred to in the title, it is pretty easy to separate them. Of Antonio de Saldanha I shall speak presently; but the letters brought by Cide Barbudo (so far as the summaries printed tell us) were as follows:—A letter from Diogo de Alcaçova dated 22 November 1506 (text in *Cartas* ii. 385-89, summary in ditto. 390); letter from the viceroy dated 27 December 1506 (summary in *Cartas* ii. 391-97); letter from Lourenço de Brito dated January 1507 (summary in *Cartas* ii. 397). It was in this long letter, ended on 27 December 1506, that Dom Francisco de Almeida reported to King Manuel the "discovery" of Ceylon by his son (see B 2, *infra*). Judging by the summary, the viceroy would seem to have been chary in detail in writing of this event; and I see no reason to doubt what Correa tells us (see end of B 10, *infra*), that Dom Francisco sent to Portugal a man who had accompanied the expedition to Ceylon to report verbally to the king what he as an eye-witness had seen. To this reporter apparently are due the interesting details given in King Manuel's letter to the pope (see B 3) and copied by Castanheda (see B 8).

§ I infer this from the fact that the letter from Lourenço de Brito is dated in that month, as stated in the previous footnote.

|| Cast. (ii. c. xxxii.) is the only one that refers to Cide Barbudo's return. He says: "And by this Cide Barbudo the viceroy wrote to the king of Portugal what had been done in India since the departure of the other ships: but if this ship reached Portugal I do not know." As regards this last statement see next note.

September;* for on the 25th of that month King Manuel wrote letters† to Pope Julius II. and the college of cardinals at Rome announcing Dom Lourenço's "discovery" of Ceylon and his victory over the Calicut fleet,‡ as also the "discovery," by Tristão da Cunha and his companions, of another (and far larger) island, to wit, that of Madagascar.§

The very fact of the king's writing to the pope and cardinals regarding the "discovery" of Ceylon argues the importance he attached thereto; and it is interesting to know that on St. Thomas's day, 21 December 1507, a solemn procession was made in Rome to celebrate the event (see B 6), when the famous Frei Egidio de Viterbo, prelate-general

* From the title of the collection of summaries quoted in a previous note we know that Cide Barbudo arrived in Lisbon after Antonio de Saldanha; and as we also know (see note below) that the latter reached Portugal in August 1507, we may safely conclude that the former's arrival was in September.

† See *infra*, B 3, B 4.

‡ These two events, the news of which was brought by Cide Barbudo, are the ones first related in his letter by Dom Manuel, the "discovery" of Ceylon taking the first place as the most important.

§ There appears to be some uncertainty as to when and by whom Madagascar was discovered. According to Correa (i. 153) the first Portuguese who sighted and landed on the island was Diogo Dias, one of the captains of the fleet of 1500 under Lopo Cabral; and he it was, says Correa, who gave it the name of São Lourenço, on account of first sighting it on St. Lawrence's day (12 August). Cor. also records (i. 418) that Diogo Fernandes Peteira, one of the captains in the fleet of 1503 under Antonio de Saldanha, wintered in a port in the island in 1504 on his way to India. These statements are, however, not corroborated by the other historians; and it is generally believed that, as mentioned above, Fernão Soares, on his homeward voyage in 1506, was the first European to discover and land on Madagascar (in February, according to Cast. ii. c. xxi.), though he was then unaware of its identity (cf. Hans Mayr's account in *Bol. de Soc. de Geog. de Lisboa*, 17 ser., 1898-9, p. 367). It was the chance landfall at a port in the south of Madagascar of Rui Pereira, one of Tristão da Cunha's captains, that led that famous navigator, against Albuquerque's wishes, to go and "discover" the island, an expedition that reflects disgrace on all concerned in it (see details in *Com. of Af. Dalb.* i. 26-33, *Cartas* i. 1-4, and Whiteway's sarcastic description in *Rise of Port. Power in India* 113). It was after the disastrous failure of this enterprise, and on their return to Moçambique in February 1507, that Tristão da Cunha and Albuquerque found João da Nova under the circumstances I have mentioned already.



POPE JULIUS II., 1503-1513.

Portrait by Raphael, in the National Gallery, London
(from a photograph by Franz Hartstaengl, London—by special permission.)



of the Augustine order, delivered a lengthy oration, entirely in laudation of the pope, to whom he ascribed not a little of the glory of the event (see B 5). That the news was received in Venice with anything but pleasure, we can well imagine, though on that point the Venetian diarist is discreetly silent (see B 6). It is greatly to be regretted that the instructions issued by Dom Manuel in 1510, for the painting of a set of pictures commemorating the chief discoveries made during

João da Nova's ship, the *Flor de la mar*, being in a very leaky condition, the cargo had to be discharged; wherefore, says the writer of the *Com. of Af. Dalb.* (i. 33), Tristão da Cunha "bought a merchant ship, of which André Dias (who was afterwards Alcaide of Lisbon) was captain and factor, and ordered all the cargo of the *Flor de la mar* to be stowed in it, and gave the command of it to Antonio de Saldanha, and sent it to Portugal, and in company with it a ship of Fernão de Loronha, of which the captain was Diogo Mendez Correa." According to Bar. (II. i. ii.) the cargo was transferred to the *Sancta Maria*, a ship of Tristão da Cunha's fleet, the captain of which, Alvaro Fernandes, had died. André Dias was the ship's factor (see Cast. ii. c. xxx.). Cast., Cor., and Albuquerque (*Cartas* i. 5, 417) call her "the ship from Lagos." With respect to the other ship I am puzzled. We have seen above that the *Madalena*, Captain Diogo Fernandes Correa, had to remain at Moçambique and discharge her cargo; and we might infer it was she that accompanied the *Sancta Maria*, and that "Mendez" in the above extract was an error for "Fernandez." But Cor. (i. 719) mentions a Diogo Mendes Correa who had come out to be factor of Coulam, but who returned to Portugal in disgust because the viceroy would not give him the factorship of Cochín. This, however, would seem to have been in 1507 (see the viceroy's letter in Cor. i. 908). And yet a Diogo Mendes (Correa?) did apparently accompany Antonio de Saldanha back to Portugal, as will be seen from the list of letters which the latter carried, the summaries of which are printed in the *Cartas*. One of these (ii. 390) is headed "Remembrances that Diogo Mendes retained of his letter" (evidently a letter that had miscarried). Among the letters brought to Portugal by Antonio de Saldanha were the following:—From Albuquerque of 10 November 1506 (i. 417, where "1507" is an error), another of 6 February 1507 (text at i. 1-6, and sum. at i. 417), another of same date (i. 416), another of 14 February 1507 (i. 417); from Pero Vaz d'Orta, factor of Tristão da Cunha's fleet, of 4 March 1507 (iii. 277); and from João da Nova (quoted above) of 5 March 1507 (ii. 397). This last date shows us that Antonio de Saldanha must have set sail from Moçambique early in March 1507; and Bar. tells us (II. iv. iii.) that he reached Portugal in August, and was favourably received by the king in Abrantes (*cf.* B 3, B 4, *infra*), but did not get what he asked for—the carrying out of the "discovery" of Madagascar.

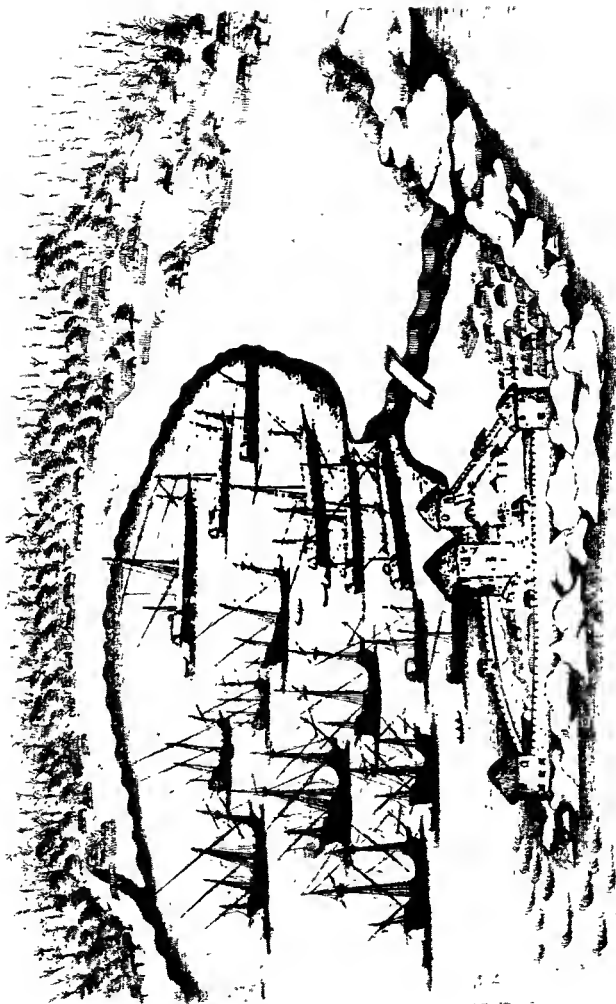
his reign (see B 7), were apparently never carried out ; for we should then have been able to realize the details of Dom Lourenço's "discovery" far better than it is possible to do from the descriptions of that event.

Owing to the non-arrival in India in 1506 of any of the ships that sailed from Portugal that year, the viceroy, when he wrote at the end of December to the king, had not received Dom Manuel's letter of March or April 1506 (see A 21), in which he was ordered to go in person to Malacca and build a fortress there, and on the return voyage to call at Ceylon, erect a fortress, and make that the principal viceregal residence, this order being based upon sentimental as well as practical reasons. From the summary of the viceroy's letter referred to it appears that Dom Francisco when he wrote was desirous of building a fortress at Columbo, which he described as admirably suited for the purpose. In fact, as stated already, it would seem that he sent Lopo Chanoca thither to carry out this work, which, however, for some reason not stated, was not accomplished. Whether King Manuel in writing to the viceroy in 1507 renewed his request, I do not know, since his letter of that year appears to have perished ; but in February 1508, having in his mind what Dom Francisco had written on the subject, Dom Manuel, in his instructions to Diogo Lopes de Sequeira (see C 2), ordered him when going to Malacca to call at Ceylon, where he evidently thought the viceroy would ere then have erected the proposed fortress. That it had not been built was not owing to any change of mind in the viceroy, as is evident from the manner in which he wrote to the king at the end of 1508 respecting its desirability (see C 5). It must be inferred, therefore, that the cause of the non-execution of the work lay in opposition on the part of the king of Cota.*

But, though apparently favourable to the idea of having a fortress in Ceylon, Dom Francisco de Almeida was opposed to the multiplication of Portuguese fortresses in the east.†

* Cf. the statements of Bar. and Cast. in the extracts C 3 and C 4, *in/ra*.

† In writing to the king at the end of 1508 he says (Cor. i. 906): "Regarding the fortress there in Coulaõ, the more fortresses you have, the weaker will be your power: let all your strength be on the sea,



TA FORTLESA FIZ O GOVERNADOR LOPE SOARES E SE DESEFES EM TENPO DO GOVERNADOR N. DA CILAN PER
VINDADO DELREY NOSO 908

VIEW OF THE FIRST PORTUGUESE FORT AT COLUMBO IN 1518.

From Gaspar Correa's "Lendas da India" n.

His successor, Affonso de Albuquerque, did not share the viceroy's views on this point*; but though, as Barros tells us (see C 24), King Manuel repeatedly urged the matter upon him, and though apparently he had the opportunity in 1513 of fulfilling the king's wish (see C 15), he likewise failed to carry out the work. The reason for this is doubtless to be found in Albuquerque's letter of 4 November 1510 (see C 7), from which it would seem that he regarded a fortress in Ceylon as needless. That this was so as regards the supply of cinnamon is evident, enough being brought each year to Cochin by Portuguese or Moorish vessels for the loading of the homeward-bound ships.†

It was not until 1518, therefore, that Albuquerque's successor, Lopo Soares de Albergaria,‡ disappointed with his ill-success at the mouth of the Red Sea.§ and knowing that a new governor was on his way out, resolved, in order to leave some task fulfilled, to carry out the long-deferred work (see C 24). This was successfully accomplished, in spite of opposition on the part of the king of Cota and his people,|| in October–November 1518¶; but the fortress was such a flimsy structure that it had to be rebuilt in 1520.**

because if on it we be not powerful, which our Lord forfend. everything will forthwith be against us, and if the king of Cochym chose to be disloyal, forthwith all would be destroyed, because the past wars were with beasts, now we have it with Venetians and Turks of the Soldan."

* See Morse Stephens's *Albuquerque* 39–40, 72–73: Whiteway's *Rise of Port. Power in India* 169–70.

† Cf. the letters of Antonio Real and Lourenço Moreno quoted *infra* (C 12 and C 17).

‡ Regarding this man's governorship see Whiteway *op. cit.* 179–89.

§ See Whiteway *op. cit.* 184–86.

|| Whiteway (*op. cit.* 180) sarcastically observes of Diogo Lopes that "his solitary success consisted in building a fort among the unwarlike Sihalense."

¶ See Cast. iii. c. xlii.–xliii. (*Ceylon Lit. Reg.* iv. 196–97, 203–4), Bar. III. ii. ii., Cor. ii. 539–47 (*C. Lit. Reg.* iii. 179–81, 197–98, 204). For a view of the fortress see the plate opposite, reproduced from Cor. ii. 541.

** One of the earliest acts of King Manuel's successor Dom João III. was to order its demolition, which was carried out at the end of 1524 (see Bar. III. ix. ii.).

Here my task ends ; and I think I have succeeded in showing (i.) that from the time of Vasco da Gama's first voyage to India (as before that event) Ceylon was universally regarded as the "mother of cinnamon" (as Barros puts it) ; (ii.) that the "discovery" of Ceylon by Dom Lourenço de Almeida took place in September 1506 ; (iii.) that Columbo, and not Galle, was the port where he made landfall, and where he erected the commemorative *padrão* ; and (iv.) that from the time of that discovery until the erection of the first fortress at Columbo in 1518 Portuguese intercourse with Ceylon, though perhaps not very frequent, was uninterrupted.

APPENDICES.

A 1.

*Journal of the First Voyage of Vasco da Gama.*¹

[1498-9.]

From this country of Calecut which is called India Alta goes the spicery that is consumed in the west and in the east and in Portugal and indeed also in all the regions of the world;—there also go from this city called Calecut many precious stones of every sort;—to wit, in this said city there is of its own growth this spicery that follows: much ginger and pepper and cinnamon, although it is not as fine as is that of an island that is called Cillam which is eight days' journey from Calecut: all this cinnamon is brought to this city of Calecut....

* * * * *

These names written below are of certain kingdoms that are to the south of Calecut; and the things that each kingdom has and what they are worth; the which I learnt for very truth from a man who knew our language and had come thirty years before from Alexandria to these parts.²

* * * * *

Another Kingdom.

¶ Ceylam which is an island very large and inhabited by Christians and with a Christian king³; from Calecut by sea with a fair wind it is eight days; this king can muster four thousand men and also has many elephants for war and for sale: here is all the fine cinnamon that there is in this India, and also sapphire stones and better than others of other countries, and rubies few but good.

¹ This is by an unknown writer, who was on one of the ships of Vasco da Gama's expedition. It was first printed in 1838, a new edition appearing in 1861. An admirably edited English translation by Mr. E. G. Ravenstein was issued by the Hakluyt Society in 1898. As Mr. Ravenstein's version is a little free, I have here given an almost literal translation.

² This was the Jew known as Gaspar da Gama or Gaspar da India, regarding whom see Ravenstein's *First Voyage of Vasco da Gama* 179. He is referred to in the extract A 4 below; and to him we are indebted for the earliest extant reference to the visit of D. Lourenço de Almeida to Ceylon (see B 1).

³ The Portuguese, on first arriving in India, mistook the Hindu form of worship for a kind of Christian ritual (see *First Voyage of V. da Gama* 53). They soon discovered their error, and then termed the Hindus gentiles or pagans (*gentios*).

A 2.

Letter of King Manuel to the Cardinal Protector.¹

[28 August 1499.]

..... those who have just returned from this investigation and discovery visited, among other ports of India, a city called Quolicut, whence they brought us cinnamon, cloves, The island of Taprobana, which is called Ceilam,² is 150 leagues from Quolicut

¹ A copy of this letter (the original of which may be in Rome) is among the national archives in Lisbon, and was printed in the *Boletim* of the Lisbon Geographical Society in 1886. There are many blanks in the printed copy, owing, apparently, to the illegibility of the manuscript. An English translation is given in the *First Voyage of V. da Gama*, App. A.

² On this point King Manuel seems never to have changed his opinion (*cf.* A 21, B 3).

A 3.

Girolamo Sernigi's First Letter to a Gentleman at Florence.¹

[? July 1499.]

All kinds of spices are to be found in this city of Chalichut, such as cinnamon, pepper, ginger, frankincense,² lac: and brazil wood abounds in the forests. These spices do not grow here, but in a certain island³ at a distance of 160 leagues from this city, near⁴ the mainland. It can be reached overland⁵ in xx days and is⁶ inhabited by Moors.⁷ All the above spices are brought to this city as to a staple.

The vessels which visit the islands⁸ to carry spices to this city of Chalichut⁹ are flat-bottomed, so as to draw little water,¹⁰ for there are many dry places (shoals).¹¹ Some of these vessels are built without any nails or iron,¹² for they have to pass over the loadstone.¹³

* * * * *

A load of cinnamon equal to 5 Lisbon¹⁴ cantars is worth in that city between x and xii ducats, or serafins,¹⁵ at most; but in the islands where it is collected it is worth only half that sum.¹⁶ Pepper and cloves are rated similarly. Ginger and cinnamon are worth more than any other spices.¹⁷.....

* * * * *

The island where the spices grow is called¹⁸ Zilon, and is 60 leagues from said city. In that island grow the trees which yield very good cinnamon; as also pepper. However, there is still another island [in which spices grow]. Cinnamon and pepper

also grow on the mainland, around this city, but the quality is inferior to the products of the islands.....

* * * * *

In the island of Zilon, where the cinnamon grows, are found many precious stones and the biggest sapphires.

¹ The text of this letter was printed (anonymously) for the first time in Fracanzio di Montalboddo's *Paesi Novamente Retrovati* (Vicenza, 1507). An English translation from a manuscript copy in the Biblioteca Riccardiana, Florence, is given in App. B of the *First Voy. of V. da Gama*: from this the above extracts are taken. The writer of the letter, a Florentine, was settled as a merchant in Lisbon for many years. Tennent (i. 638 n.) has the following extraordinarily erroneous reference to Sernigi:—"There are two other Italian travellers of this century who touched at Ceylon; one a 'Gentleman of Florence,' whose story is printed by Ramusio (but without the author's name), who accompanied Vasco de Gama, in the year 1479 [*sic*], in his voyage to Calicut, and who speaks of the trees 'che fanno la cannella in molta perfettione.'" Sernigi, as I have said, was a merchant, not a traveller, and did *not* accompany Vasco *da* Gama in 1497 (1479 is doubtless a misprint), and could not therefore have "touched at Ceylon." Finally, it was to "a gentleman of Florence" that his letters were written. (Suckling, in his *Ceylon* i. 271, copies Tennent's errors and adds some on his own account.)

² The version in *Paesi Nov. Retr.* adds "cloves."

³ *P. N. R.* reads "certain islands."

⁴ *P. N. R.* "which islands are near."

⁵ *P. N. R.* has nothing about going "overland": it says: "from the said city one goes there."

⁶ *P. N. R.* "they are."

⁷ *P. N. R.* adds "and not by Christians, and the Moors are lords."

⁸ *P. N. R.* adds "of spices."

⁹ *P. N. R.* has "to carry them to the said city."

¹⁰ *P. N. R.* has "very" before "flat-bottomed" and "little."

¹¹ This clause is not in *P. N. R.*

¹² The words "nails or" are wanting in *P. N. R.*

¹³ *P. N. R.* adds "it is a short distance from there from the said islands." As regards the nail-and-ironless vessels and the loadstone, see Tennent, *Ceylon* i. 442-43.

¹⁴ Not in *P. N. R.*

¹⁵ These two words are not in *P. N. R.*

¹⁶ *P. N. R.* has "it is not worth vi" (i.e., ducats).

¹⁷ *P. N. R.* has "Ginger is less by half."

¹⁸ *P. N. R.* has "islands are called."

A 4.

*Girolamo Sernigi's Second Letter to a Gentleman of Florence.*¹

[? August or September 1499.]

Since I sent you full particulars about India and its discovery there has arrived here the pilot *whom they took by force

This man told wonderful things about those countries, and their wealth in spices. The good and fine cinnamon is produced

in other islands about 150 leagues beyond Calichut, very near the mainland: they are inhabited by Moors. Pepper and cloves come from more distant parts.

The island of Taprobana, of which Pliny wrote so fully, must³ be out at sea very far from the mainland.⁴

¹ This letter, like the previous one, was first printed (anonymously) in the *Paesi Novamente Retrovati*. An English translation is given in App. B of the *First Voy. of V. da Gama*.

² This was Gaspar da India (see A 1, note², above).

³ Before "must" Mr. Ravenstein inserts "was not known to the pilot, for it."

⁴ Evidently Gaspar da India could not identify Ceylon with Pliny's Taprobane.

A 5.

*Girolamo Sernigi's Letter to his Brother.*¹

[? August or September 1499.]

Item: The spices that come there to Kalakutt come for the most part from the island called Zelony.² And there are only heathen folk there, and they are lords over the island.³ And it lies 160 leagues distant from the town of Kalakutt, and from the mainland it lies only 1 league.

And if one wants to get to the land there from this city one must take 20 days.⁴ And in the island are forests with brazil and many roseberries there, and other spicery, cloves, rhubarb. Some other small spicery comes from afar from other islands. The cinnamon barks also come from the island of Zelony.

¹ The original of this letter is not extant, but an abstract in German, made by the antiquary Peutinger, was printed by Dr. B. Greiff in the *Sechszwanzigster Jahres-Bericht des historischen Kreis-Vereins von Schwaben* (Augsburg, 1861). An English translation of a few extracts is given in App. B of the *First Voy. of V. da Gama*.

² Misprinted "Zelong" in the *First Voy. of V. da Gama*.

³ Mr. Ravenstein has "and the king is a heathen [Moor]."

⁴ Mr. Ravenstein has "By land it is a journey of twenty days."

A 6.

Barros I. v. vi.

[November–December 1500.]

. He [Coge Cemecerij, a Moor of Calicut] learnt that from Cochij, a city some twenty miles from there, had set sail a ship, which had come from the island of Ceilam and carried seven elephants which it was conveying for sale to the kingdom of Cambaya; and it belonged to two merchants of the same Cochij, who were called Mammale Mercar and Cherina Mercar

he went to Aires Correa,¹ and pretending that in this he was doing him a service, told him that he had had news, that from the port of Coulam² had set sail a ship laden with all kinds of spicery, with which he could well load two of our ships, and that it was bound for Mecha, and on the way had to take in some ginger at Cananor [Consequently, the Portuguese attacked the ship, which showed fight, and took refuge in the bay of Cananor, whence the Portuguese without resistance (the crew having been mostly killed or wounded) brought it to Calcut, where the "common people" of the Portuguese crews regaled themselves with the flesh of one of the elephants, which had been killed in the fight. Discovering how he had been deceived, however, Pedralvares Cabral restored the ship to her captain, with apologies for the damage that had been done.³]

¹ The factor, who, with other Portuguese, was killed soon afterwards.

² The edition of 1778 has erroneously "the port of Ceilão."

³ Castanheda (i. c. xxxvii.) gives a very different account of this affair: according to him, the Samuri, wishing to buy an elephant, asked the Portuguese to intercept the ship.

A 7.

*Places whence the Spices come.*¹

[1501 ?]

Cinnamon comes from Zallon, and there is no cinnamon found except in that place: it is cclx leagues beyond Calichut.

¹ This list is printed in *Paesi Novamente Retrovati* after a description of the voyage of Pedralvares Cabral in 1500, and appears to be compiled from information obtained during that expedition.

A 8.

*Copy of another Letter, written there [Lisbon], by Lunardo Nardi, dated 20 September [1502].*¹

In his [the king of Colochut's] country there is nothing but pepper, cinnamon, ginger; and the good cinnamon comes from Sailem, cloves and white and red sandal from another place,² where, they say, are all the riches of the world.

¹ This is printed in the *Diarii di Marino Sanuto* (see B 6) iv. 545-47. The writer was a merchant resident in Lisbon. This letter is accompanied by a shorter one, of the same date, by another Florentine merchant, Bortholamio Marchioni; and both relate to the return to Lisbon, on 12 September 1502, of the four ships under João da Nova, which had sailed for India in March 1501.

² Sumatra (see A 9 A 10, A 15).

A 9.

Paesi Novamente Retrovati, cap. cxlii.

[From information of Padre Joseph,¹ after June 1502.]

There are also in this Indian sea many islands, among which are two worthy of mention. The first is Saylam, distant from the cape Comari cc miles, in which are produced the horses.² Beyond this towards the east is the island of Samotra or Taprobana.³

¹ This man and his brother Mathias, professed Christians, were found at Cranganor in 1500 by Pedralvares Cabral, who brought them to Portugal, where Mathias died. Joseph went to Rome, and thence to Venice, where the details published in the *P. N. R.* were obtained from him.

² In original "*dove nasceno le Caualle*"—a ridiculous misprint for "*le canelle*," "the cinnamon [barks or quills]."

³ Like Gaspar da India, Padre Joseph could not identify Ceylon with Taprobana, which name he agreed with the compilers of the Canerio and Cantino charts (see A 10) in applying to Sumatra.

A 10.

Legends in the Canerio Chart.¹

[1502.]

Ataprobana.²—This island called Ataprobana is the largest island in the world and the richest in everything, such as gold and silver and precious stones and pearls and very large and fine rubies and all kinds of spicery and silks and brocades; and the people are idolators and very [well] disposed and trade with outsiders and send out from here many wares and bring others that are not found in this island.

[*Cillam*.³]—Here is produced the cinnamon and many kinds of spicery, and here they fish pearls and seed-pearls; the people of this island are idolators and trade much cloves with Calicut.⁴

¹ A reproduction of part of this chart is given in the *First Voyage of V. da Gama*, the legends, with English translations, being printed in App. G. The reference letters prefixed to the last five legends do not correspond with those in the map.

² In the map this name is assigned to Sumatra; but the description in the legend would seem to show some confusion with Ceylon.

³ In the Canerio chart no name is given to Ceylon, though the names of three places on the east coast are marked, viz., Morachim (——?), Traganollaneo (Trincomalee), and Panama (Pánawa). The name Cillam is from the Cantino chart, also of 1502 (*cf.* the first extract above, A 1).

⁴ This last statement is, of course, erroneous. Leonardo Nardi (see *supra*, A 8) was better informed.

A 11.

*Calcoen.*¹

[January 1502.]

..... From Coloen² 1 miles lies an island and it is called Steloen,³ and there grows the best cinnamon that is found.

* * * * * * *

The ginger grows as the rush does, and cinnamon like willows,⁴ and every year the cinnamon is peeled, and the thinner and newer it is the better it is

¹ This is the title of a Dutch pamphlet, printed at Antwerp *circa* 1504, and giving an account of the second voyage of Vasco da Gama in 1502. A facsimile of the original, with a faulty English translation, was published in 1874 by Mr. J. Ph. Berjeau.

² Coulam, or Quilon.

³ A misprint for "Sieloen."

⁴ As di Conti had remarked, some sixty years before.

A 12.

*The Voyage to the East Indies by Thomé Lopez.*¹

[19 November 1502.]

..... And those of Cocchin also told us, that from there to Zeilam is 150 leagues, and that it is a rich and very large island of 300 leagues, and that there are great mountains there, and cinnamon grows there in the greatest abundance, more than in any other place, and the best that is to be found, and many precious stones, and great quantity of pearls. And there are in the said island, corresponding to the great mountains, many wild elephants, very big, and they tame them in this manner

¹ The Portuguese original of this is lost. An Italian translation was printed by Ramusio in tom. I of his *Navigazioni et Viaggi* (1550). It describes the second voyage of Vasco da Gama to India.

A 13.

Barros I. vi. vi.

[November–December 1502.]

..... The king of Cochij during this time had not yet seen the admiral¹; and because he learnt that there was about to enter his port a ship of Calecut, which was coming from Ceilam, and which belonged to a Moor of Calecut called Nine Mercar, fearing

that Vicente Sodre on going out would capture it, he sent and begged the admiral that he would not impede that ship, which he wished to enter that port of his, although it was from Calcut.²

¹ Vasco da Gama.

² Since the massacre at Calcut, in December 1500, of Aires Correa and his companions, the Portuguese had declared unceasing war against Calcut and all connected with it (*cf.* B 10, *infra*).

A 14.

*Correa i. 328.*¹

[1502.]

.....our people left Cochym, having finished loading the ships with all that they wanted of pepper and drugs which were in superabundance, because the merchants of Cochym, when they saw our great trade established, from which they derived such profit, sent their ships to Malaca, and Banda, and Maluco with their goods, which were Cambaya cloths, in exchange for which they brought them all kinds of drugs, and on the return voyage from Malaca they got cinnamon in Ceylão, and they had everything ready in Cochym for the loading of the ships, and what was over they sent for sale to Cambaya, whence they got their cloths, with which they returned to Malaca.²

¹ See also Stanley's *Three Voyages of Vasco da Gama* 364. This extract is from the account of the second voyage.

² *Cf.* the extract from Correa below, A 20.

A 15.

*Copy of a Letter received from the Merchants of Spain to their Correspondents in Florence and Venice of the Treaty of Peace between the King of Portugal and the King of Calichut.*¹

[December 1503 ?]

There still remains to discover the island of Taprobane,² which according to Pliny is superabundant in riches and money and pearls, and needs to be discovered.

¹ This is printed in *Paesi Novamente Retrovati* cap. cxxviii. It gives information received by the Portuguese ships of 1502, which returned to Lisbon 15 December 1503.

² Either Ceylon or Sumatra may be meant.

A 16.

*The Commentaries of Afonso Dalboquerque.*¹

[1503-4.]

Coulam at the time that Afonso Dalboquerque came to it was a very great city This city was a great trading port, and in former times many merchants were settled there from all parts of India, chiefly from Malaca. And being a port sheltered from all the winds, it was the principal staple for all the ships that sailed to India, both those that passed by the island of Ceylam and those that sailed between Ceylam and Chale.² And at that time the island of Ceylam was subject to it, and paid tribute to it.³ From Coulam to that island is some eighty leagues, and from Coulam to Chale, which is about sixty leagues by coast, all belonged to it.⁴

¹ This work by Albuquerque's son was first printed in 1557: it is from this edition that I have translated the extract. A revised and enlarged edition was published in 1576, which was reprinted in 1774. An English translation by Mr. W. de Gray Birch was issued by the Hakluyt Society in 1875-84. The passage from which this extract is taken appears to be based on the description of Coulam in Castanheda liv. i. cap. lxi.

² This should be "Cael." Chale was an old port on the south side of the Beypur river; Cael (Káyal) was in the extreme south of India on the Gulf of Mannár (see *Hobson-Jobson* s. vv.). Castanheda (*loc. cit.*) has "Cale."

³ This is of course an error.

⁴ See Barbosa (*Hakluyt Soc. ed.*) 161, 163, 173.

A 17.

*Description of the Voyage from Lisbon to Calicut.*¹

[1504.]

And they bring [to Calacut] spicery from Malacca and Cella, which is the great island of Taprobana, of which so much is written. There are many precious stones there, it is 250 miles from Calicut, and the cinnamon grows best of all² in the said island.³

¹ This is a document in German, found among the papers of Dr. Conrad Peutinger, and printed by Dr. B. Greiff in the *Sechszundzwanzigster Jahres-Bericht des historischen Kreisvereins von Schwaben* (Augsburg, 1861).

² The original has "aller fast," which may be an error for "aller best."

³ Leonardo Ca' Masser (see *infra*, A 23), in his summary account of this voyage, has "Cumari a place, where were all the cinnamon [quills]." Apparently "Cumari" represents Cape Comorin, and the "place" must have been Ceylon.

A 18.

*The Travels of Ludovico di Varthema.*¹

[1505.]

..... The said city [Cioromandel²] is situated opposite to the island of Zeilon, when you have passed the Cape of Cumerin We passed a gulf of twelve or fifteen leagues where we had incurred great peril because there are many shoals and rocks there; however, we arrived at an island called Zailon,³ which is about 1,000 miles in circumference, according to the report of the inhabitants thereof.

THE CHAPTER CONCERNING ZAILANI, WHERE JEWELS ARE PRODUCED.

In this island of Zailon are four kings,⁴ all pagans. I do not describe to you all the kings of the said island, because these kings being in fierce war with each other,⁵ we could not remain there long, neither could we see or hear the things thereof; however, having remained there some few days, we saw that which you shall hear. And first, an immense quantity of elephants which are produced there. We also saw rubies found there, at a distance of two miles from the sea shore, where there is an extremely large and very long mountain, at the foot of which the said rubies are found.⁶ And when a merchant wishes to find these jewels, he is obliged first to speak to the king and to purchase a *brazo* of the said land in every direction (which *brazo* is called a *molan* ⁷), and to purchase it for five ducats. And then when he digs the said land, a man always remains there on the part of the king. And if any jewel be found which exceeds ten carats, the king claims it for himself, and leaves all the rest free.⁸ There is also produced near to the said mountain, where there is a very large river, a great quantity of garnets, sapphires, jacinths, and topazes. In this island there grow the best fruits I have ever seen, and especially certain artichokes (*carzofoli*)⁹ better than ours. Sweet oranges (*melangoli*), the best, I believe, in the world, and many other fruits like those of Calicut, but much superior.

THE CHAPTER CONCERNING THE TREE OF THE CANNELLA.

The tree of the *cannella* is the same as the laurel, especially the leaves; and it produces some berries like the laurel, but they are smaller and more white. The said *cannella*, or cinnamon, is the bark of the said tree in this wise: Every three years they cut the branches of the said tree, and then take off the bark of them; but they do not cut the stem on any account. There are great numbers of these trees. When they collect that cinnamon it has not the excellence which it possesses a month afterwards. A Moorish merchant told me that at the top of that very large mountain there is a cavern to which the men of that country go once in the year to pray, because, as they say, Adam was up there praying¹⁰ and doing penance, and that the impressions of his

feet are seen to this day, and that they are about two spans long. Rice does not grow in this country,¹¹ but it comes from the mainland. The kings of this island are tributaries of the king of Narsinga,¹² on account of the rice which comes there from the mainland. The air in this island is extremely good, and the people are of a dark tawny colour. And here it is neither too hot nor too cold. Their dress is *alla apostolica*¹³; they wear certain stuffs of cotton or silk, and go bare-footed. This island is placed under the equinoctial line,¹⁴ and the inhabitants of it are not very warlike. Artillery is not used here¹⁵; but they have some lances and swords, which lances are of cane, and with these they fight amongst each other; but they do not kill each other overmuch, because they are cowardly fellows. Here there are roses and flowers of every kind, and the people live longer than we do. Being in our ship one evening, a man came on the part of the king to my companion, and told him that he should carry to him his corals and saffron; for he had a great quantity of both. A merchant of the said island, who was a Moor, hearing these words, said to him secretly: "Do not go to the king, for he will pay you for your goods after his own fashion." And this he said out of cunning, in order that my companion might go away, because he himself had the same kind of merchandize. However, answer was given to the message¹⁶ of the king, that on the following day he would go to his lord. And when morning came, he took a vessel and rowed over to the mainland.

* * * * *

This district [Paleachet] is one of immense traffic in merchandize, and especially in jewels, for they come here from Zeilon and from Pego

¹ The original Italian of this work was first published in 1510, there being many subsequent editions and translations into various languages. I have taken these extracts from the translation by Mr. Winter Jones issued by the Hakluyt Society in 1863 (only making a few emendations in spelling to correspond with the original). Varthema's narrative is a mixture of fact and fiction; and it is extremely doubtful if his travels extended further eastward than the Malabar coast, though he professes to have gone as far as the Banda and Moluccas islands, and describes the various places which, he says, he visited. His description of Ceylon, it will be seen, is very meagre, and the information might well have been picked up from native merchants at Calicut.

² The "city of Choromandel" was probably Negapatam (*cf.* B 2, and see *Hobson-Jobson* s.v. "Coromandel").

³ If Varthema had actually visited Ceylon, he would hardly have failed to name the port at which he called.

⁴ *Cf.* Correa's statement (B 10, *infra*). These would be four of the six sons of Vira Parákrama Báhu (see Bell's *Report on the Kēgalla District* 5; *Rājāvalīya* 71).

⁵ This statement is not borne out by the *Rājāvalīya*.

⁶ The "mountain" is evidently the Adam's Peak range, which is a good deal more than "two miles from the sea shore."

⁷ The editor of the Hakluyt Society's edition of Varthema in a footnote hazards the suggestion that this may mean an amunam. The meaning is simple enough: *molan* represents Tamil or Malayalam *mulam*, cubit.

⁸ Cf. Barbosa's statement in the extract given below (C 22).

⁹ To this the editor of the Hak. Soc. Varthema appends the following footnote: "Probably the custard apple, which in outer form is not unlike an artichoke." But it is doubtful if the custard-apple existed in Asia until the Portuguese introduced it from South America (see *Hobson-Jobson* s.v. "Custard-apple").

¹⁰ This should be "mourning," or "lamenting" (the original has *piangere*).

¹¹ Barbosa's statement (see C 22) is more correct.

¹² An erroneous statement.

¹³ This is a favourite expression of the author's, and means, probably, clad in long robes, such as the Italian artists depicted the apostles as wearing.

¹⁴ An error.

¹⁵ Cf. the statements in the extracts given below from Couto and the *Rājāvalīya* (B 12 and B 14).

¹⁶ This should be "messenger."

A 19.

*Instructions that D. Francisco de Almeida carried when he went as Captain-Major to India.*¹

[5 March 1505.]

* * * * *

Item: Because in India there are still so many things to discover, and such that when they have been discovered there may result therefrom much to our service, both by the profit from the things that may be there as well as by the right of ownership, and in other respects much to our service, we think well that after the loading of the ships is finished and they have been duly dispatched and all the rest has been executed that by these instructions I command you to do, not having need of all the vessels that are to remain with you, you send a pair of caravels, or whatever else shall seem suitable and you can well spare, to discover Ceylan, and Pegu and Mallaca, and any other places and things of those parts, sending in the said vessels that you thus send a person who shall have the chief charge of them, and one who will do it very well and with all regard to and security of our service, and in the said places and in all others and any ports and countries that they shall discover they shall place our *padrões* of stone,² with the royal arms and the cross of Christos at the top,³ which *padrões* you shall order the stone-cutters who go to make there.⁴

* * * * *

¹ This document is printed in *Cartas de Affonso de Albuquerque* ii. 272 ff.

² Regarding these *padrões* or memorial pillars see *First Voy. of V. da Gama* 169-70.

³ Cf. B 2.

⁴ In the earliest voyages the navigators carried a supply of marble *padrões* with them from Portugal (see Stanley's *Three Voy. of V. da Gama* 73, 141): this was now found to be needless.

A 20.

Correa i. 622.

[January 1506.]

.....The viceroy sent Dom Lourenço with his fleet to carefully guard the vessels from Cochym and Cananor,¹ which went laden with cloths, with which they sailed to Malaca, Maluco, Banda, and other parts, whence they returned laden with drugs and cinnamon which they got in Ceylão on the way back.²

¹ On their way to Cambaya.² Cf. the extract *supra*, A 14.

A 21.

*Letter of King Manuel to D. Francisco de Almeida.*¹

[? March or April 1506.]

* * * * *

Item—On the return voyage,² if it please God, according to the information that we have, it appears to us that you can well take the course to Ceyllam, which is a thing of such importance in Jmdia, as you know, and in which is such wealth, and from which can be derived such profit; and, that you may be able so to do, we think it well that you come to it, and endeavour (if, with the vessels and men that you have taken, it shall seem to you that you can do it) to make, here in the said Ceyllam, a fortress, and to leave in it some men and vessels, with which it can remain more secure; and it appears to us that you ought to use all endeavour for it, on account of the advantages that this island possesses: the first, through being such a rich and important thing, and having in it the fine cinnamon, and all the choicest of the seed-pearls and all the elephants of India and many other wares and things of great value and profit; and being so near to Malaca and to the gulf of Byngalla, whence comes all or the greater part of the food-stuffs of Jmdia;³ and being near to Cayle;⁴ and lying in the track of all the ships of Malaca and Byngalla, and none being able to pass without being seen and known of in that part; and being near to the archipelago of the xij⁵ islands, in which it is said there are many very rich and profitable, and to succeed in finding which every effort should be made: and the fortress that may be made there being so near to Jmdia, because, according to what we have learnt, it is a journey of two or three days;⁶ and therefore it appears to us that your principal residence ought to be there, since it seems that there you are in the centre of everything, and that your being there gives more authority to our service and to your person; and moreover it would please us much to have this fortified residence made here, not only for all the reasons that

have been given, but because it would be a matter of very great pleasure and satisfaction to us that you and our fortress should be in Taprobana, although it is now called Ceyllam ; regarding which, by all the authors of the world, so much has been said and written, and which has been held in such high honour, for its riches and other advantages ; wherefore it will afford us very great pleasure if you do this here, and if your principal residence be in this island of Ceylan, since it appears that from here you can better provide for and assist in all things, than from any other part, on account of your being in the centre of all the fortresses and things that we have there, and, although it may seem that these things are many to be done in this voyage, since the beginning of them, and also the end to which they are brought, was all more by the hand of God, and done by him, through his infinite compassion, than for any other reason that there might be for it, as we hope in him that in everything he will grant us, in his compassion, help,—we are pleased to command that in all things it be so understood, and we hope that, for the accomplishment thereof, he may grant you his help ; and we beg you earnestly that, for your part, you endeavour thus to do this on this journey, and as well as we trust in you to do ; and we are very certain that what may be for our service cannot seem to you troublesome ; and this matter we consider to be one of the principal in which you can serve us there.

¹ This was first printed in *Annaes Maritimas e Coloniaes*, 4 ser. (1844), pte. não off. 112–18. It is also printed in *Cartas de Aff. de Alb.* iii. 268 ff. It is draft of a letter from the king to D. Francisco de Almeida, and is not dated ; but as the letter was probably sent by the fleet of Tristão da Cunha and Affonso de Albuquerque, which left Lisbon in March or April 1506, it may safely be assigned to that period.

² The greater part of the letter is occupied with instructions to the viceroy to go in person to Malacca, build a fortress there, &c. ; he is also told to inquire about Sumatra, its trade, &c. The last paragraph of the letter is the one here translated.

³ Cf. Barbosa 179–80.

⁴ Cael (see *supra*, A 16, note ²).

⁵ Twelve thousand. The “ twelve thousand islands ” are, of course, the Maldives (see Bell’s *Maldivé Islands* 4–5). Cf. C 20.

⁶ Cf. A 22.

A 22.

*Letter from King Manuel to Cardinal Alpedrinha.*¹

[? May 1506.]

.....Uident enim iam futurum preter omnium mortalium spem : quia facilis sit indies armorum nostrorum continens per uagatio ac transitus non solum in plerasque alias orientales terras ac insulas innumeras et ipsam denique Taprobanam, alterum

aliquando orbem existimatum,² quatuor dierum nauigatione tantum ab oppidis nostris distantem,³ sed etiam in intima Arabici et Persici sinuum littora ac terras

¹ This letter is undated, but, as its contents are based on information brought by Fernão Soares, who returned to Lisbon on 22 May 1506, it was probably written within a few days of that date. The extract here given is taken from the version of the letter printed in Rome, 7 November 1506, under the title *Gesta proxime per Portugalenses in India : Ethiopia : et aliis orinetalibus [sic] terris*. The letter describes the voyage of D. Francisco de Almeida in 1505—operations on the African coast, erection of forts at Anjadiva and Cananor, reception of envoys from the king of Narsinga, arrival at Cochin, expedition against Coulam; and then, near the end, comes the passage quoted above.

² Cf. B 3.

³ Cf. A 21.

A 23.

*Report of Lunardo da Chu Masser.*¹

[? June or July 1506.]

In Silan are produced cinnamon, and rubies, and sapphires, jacinths, and Syriam garnets²: the which Silan is an island; and its king is heathen; its money is of silver, and is called *fanemini*,³ which are worth 72 to the ducat. Moreover the said Portuguese have done a good trade in this place.⁴

¹ This is printed in *Archivio Storico Italiano*, *Appendice*, ii. 13-48. The writer was a secret agent of the Venetian republic, who had been sent to Portugal to gain all the information he could regarding the operations of the Portuguese in India. He arrived in Lisbon on 3 October 1504, and remained there until the summer of 1506. His report is a valuable document, and describes briefly the first nine voyages of the Portuguese to the East, giving also many details of the Indian trade, &c. The document is undated, but must have been written about June or July 1506.

² In original "granate suriane," which should mean "Syrian garnets;" but as the garnets of Syriam, in Pegu, are famous for their beauty, I have translated the word thus.

³ See *Hobson-Jobson* s.v. "Fanam."

⁴ The original is: "Pur in questo loco hanno avuto recapito detti Portughesi." What exactly the writer meant I do not know; but the Portuguese had not been to Ceylon when the ships that reached Lisbon in 1506 left India.

A 24.

*Report regarding the East Indies by Vincenzo Quirini.*¹

[1506.]

..... In which island of Anzidua² the Portuguese have recently built a fortress very well supplied with everything in order to be able to receive the ships, and to be the permanent

headquarters of those that go a-pirating, the said island being so situated, that on the whole coast of India there is not another ; from which island they then go to the coast of Cananor and Cucin to trade for goods with the natives. They reach there about the end of September, and there make an end of their voyage, nor do the ships, I mean those of merchandize, go further, as a rule, except some that cruise along the coast of India towards the south-west and south-east in order to discover newer countries, and to reach that famous staple of Malacca and the island of Taprobana, where the greater part of the ships of the Moors load.

* * * * *

Beyond this Malacca, at the end and the cape of India Minor, some hundred and fifty miles at sea more towards the south, is that very famous island that is called Taprobana, in which island is produced cinnamon and many other wares,³ to which country the king of Portugal has ordered to be sent in this last voyage four ships with a factor, who had to remain in that place⁴ and trade with the natives, who are heathen, as do the Moors.

¹ This is printed in the *Relazioni degli Ambasciatori Veneto al Senato* of Eugenio Alberi, *Appendice*, 1-19. The writer, having accompanied Philip of Burgundy to Spain on the succession of the latter to the throne of Castille, took the opportunity, being on the border of Portugal, to gain "some information from various persons deserving of credit regarding the voyage to Calicut," in order to report the same to the Venetian senate. The document is undated, but was written probably in May or June 1506. Henry Harrisse, in his *Americus Vespuccius* 35, has "1506, October 10th (?)," evidently because on that day, according to the *Diarii di Marino Sanuto*, Quirini made a verbal report to the senate of his mission to Spain, and, among other matters, "di le cosse di Coloqut, et di quella nagation, molto diffuse e le starie e porti." This document is, naturally, not so valuable as that of Leonardo Ca' Masser, and contains manifest errors, due to the writer's ignorance of the subject.

² Anjadiva.

³ It will be noticed that the writer has confused, under the name of Taprobana, the two islands—Ceylon and Sumatra—whose claim to the title has formed the subject of so much controversy.

⁴ Malacca. The "four ships" referred to were those under the command of Affonso de Albuquerque, as stated by Leonardo Ca' Masser.

B 1.

*Letter of Gaspar da India to King Manuel.*¹

[16 November 1506.]

..... Sire, on the sixteenth of November Dom Lourenço called me into his room, and spoke to me after this manner: "You know, Gaspar, how I went to Ceilão and had Mygel² with me as interpreter, because at that time when I was about to leave for Ceilaom I could find no other interpreter, since your son³ had left for Malaca⁴ in the service of our lord the king, and my father was sending you to the port of Batecala on other business⁵; and so I came to the port of Ceylão, and might well have brought ten thousand cruzados' worth of tribute to our lord the king, and for want of such a man as you who know everything I brought nothing, since the whole of the cinnamon that I brought is worth in India two hundred and fifty cruzados.⁶....."

¹ This letter, written from Cochin, is printed in *Cartas de Aff. de Alb.* ii. 371-80. It contains interesting details of events not recorded elsewhere. Regarding the writer see *supra*, A 1, note ².

² This was probably the Brahman of whom Barros tells us (I. v. viii.) that, when Pedralvares Cabral was at Calicut in 1500, this man came to him and professed his desire to become a Christian; wherefore he was taken to Portugal and baptized by the name of Miguel. In the same chapter Barros relates that this man was sent by Pedralvares with a message to the king of Cochin.

³ From a letter of 12 January 1506, from Gaspar Pereira to the king, printed in the same collection, we learn that the son's name was Baltesar.

⁴ By way of the Coromandel coast, as stated by the writer on a previous page. The expedition left Cochin on 22 August 1506, but was a failure (see *supra*, p. 304).

⁵ According to the writer's own statement in the early part of this letter he left on this mission in company with Gaspar Pereira on 1 September 1506 (but see p. 305, note †).

⁶ According to the letter of King Manuel to the pope (see *infra*, B 3) the quantity of cinnamon brought from Ceylon by Dom Lourenço after his "discovery" was 150 quintals, which is also the amount given by Castanheda (*infra*, B 7), who, however, simply copies from D. Manuel's letter. Barros, on the other hand, says (see *infra*, B 8) that it was 400 bahars of cinnamon that D. Lourenço obtained; while Correa (see *infra*, B 9) does not specify the quantity, but tells us that at the time of D. Lourenço's visit cinnamon was worth (in Cochin, doubtless) one cruzado the bahar. "which," he adds, "is equal to four quintals." This valuation of the bahar is identical with that attributed to it by Leonardo Ca' Masser in 1506 and by Barbosa in 1516, while Varthema in 1510 says it was equal to only "three of our cantari" (see quotations in *Hobson-Jobson* s.v. "Bahar"). Couto also makes one quintal equal three bahars (see B 10, *infra*). Mr. Ravenstein, in his *First Voy. of V. da Gama*, pp. 103-4 n. gives a list of prices of various spices at Calicut calculated from those given by Barbosa. Adopting his basis of calculation (quintal = 100 lb., bahar = 460 lb., cruzado =

9s. 8d.), we find that Correa's estimate of the value of cinnamon in Calecut works out to about the same figure as that derived from Barbosa's, viz., 4d. a pound. Gaspar da Gama's valuation of the first tribute cinnamon (which he fathers on Dom Lourenço) works out at less than 2d. a pound; but the object of this under-valuation is evident.

B 2.

*Summary of Letter from D. Francisco de Almeida to King Manuel.*¹

[27 December 1506.]

* * * * *

Item: how he sent Dom Lourenço to the islands of Maldiva and Quymdiquel.²

* * * * *

Item: that in Choromandel the ships of Malaca have a great trading port,³ and Pegun and Çamatra whence come all the valuable things, and that on that coast the summer begins when in Cochy the winter commences,⁴ which is at the beginning of May, and that because from then until September no vessel puts to sea, Dom Lourenço is at this time to visit the coast of Choromandel,⁵ and that between this coast and Ceilam is a sandbank on which there is not more than ten spans of water.⁶

* * * * *

Item: the discovery that Dom Lourenço made of Ceylam, it has a point like that of Cananor⁷ for making a fortress, and plenty of water and an excellent port, and he wishes to make it there and not in Coulam,⁸ and Ceilam is in the direct course for Malaca, Peguu, and Çamatra, and Choromandel⁹; from there to Ceilam is seventy leagues.¹⁰

* * * * *

Item: the cross of Christos,¹¹ and the royal arms, and the device¹² have been left in Ceilam on a *padram*.¹³

Item: he deprived Lopo Chanoca of the command of the caravel, because he gave blows to the clerk.¹⁴

Item: that he¹⁵ left for Ceylam at the end of September, and took the ship *Santo Sprito* to load cinnamon, and in a month hoped to make the fortress.¹⁶

* * * * *

¹ This valuable document is printed in *Cartas de Aff. de Alb.* ii. 391-97. It forms part of a collection in the Torre do Tombo at Lisbon entitled "Summary of all the letters that came to our lord the king, and of other messages that also came by the ships of which there came as captain-major Antonio de Saldanha, and by the ship of Cide Barbudo who came after him." In view of the irreparable loss of the viceroy's original letter, it is some consolation to have this pretty full *précis*; but the summarist appears to have sometimes failed to do justice to the contents of the original.

² "Maldiva" is Malé island, that being the name applied to it by the early Portuguese writers (*cf. infra*, C2). "Quymdiquel" is Kendikolu in Miladummañulu Atol. The name is spelt "Caundicall" in a letter of 30 December 1520, from Alvaro Fernandez to the king, printed in *Alguns Documentos*; and similarly in the map of India by Fernão Vaz Dourado (*circa* 1570), reproduced in the *Com. of Af. Dalb.* ii. (see also Gray and Bell's *Pyrard* ii. 437 and note).

³ Negapatam probably (see *supra*, A 18, note 2).

⁴ *Cf.* C 9.

⁵ This intended visit was never carried out; but at the beginning of 1507 Manuel Paçanha was sent to the Coromandel coast with an armada (see Bar. II. i. iv.).

⁶ *Cf. infra*, C 22, note 29.

⁷ Advocates of the theory that Galle was the place at which Dom Lourenço called might consider this an argument in their favour, since at both Cananor and Galle the point on which the Portuguese erected fortress was to the left of ships entering the port, and not to the right, as at Colombo. However, we must not take "as at Cananor" to mean that the point in Ceylon occupied the same relative position to the port as the one at Cananor did.

⁸ In his instructions from the king Dom Francisco was commanded, after he had returned from the Red Sea (an expedition he did not accomplish), to proceed to Coulam and erect a fort there if the king of that place gave his permission. The massacre of the Portuguese at Coulam in October 1505 (see p. 293) of course prevented the fulfilment of this order; and the viceroy was opposed to making peace with the raja on any conditions. In 1514, however, Albuquerque came to terms with the queen of Coulam; and a fortress was built there (in an underground way, apparently) by Hector Rodrigues (see C 19, *infra*, and Cor. ii. 393-95, where a picture of the fortress is given).

⁹ *Cf.* A 21, *supra*.

¹⁰ The author of the *Com. of Af. Dalb.* (see A 16) makes the distance from Coulam to Ceylon "some eighty leagues," while the anonymous writer of *Calcoen* (see A 11) puts it at "1 miles." Most of the earlier writers quoted in A give ridiculously exaggerated figures for the distance between Calcut and Ceylon. The actual distance from Cochin to Colombo is some 360 miles. Regarding the Portuguese league, see the index to *First Voy. of V. da Gama* 245.

¹¹ The cross of Christ was what is termed a "cross pattée," i.e., broadening out at the end of each limb. It is shown above the royal arms of Portugal on the rock discovered in September 1898 near the root of the Colombo Breakwater (see C. A. S. JI. xvi. 17).

¹² The "device" was that of the sphere, as Cast. correctly says (see B 8).

¹³ This *padrião* seems to have been in almost all respects similar to the one erected at Mombaça, as described by Cor. i. 559, viz., "a column of white marble and with its capital, and on the head of it the escutcheons of arms of the same stone carved into certain royal cinques (*quinas*), on the other side the escutcheon of the sphere, and on top the cross of Christ; and the column of the thickness of a thigh, and two fathoms in height" (see plate facing p. 312).

¹⁴ Who the unfortunate "clerk" was, and what he had done to rouse the ire of "big" Lopo Chanoca, I do not know, as the facts here recorded are passed over by the historians.

¹⁵ The original has "elle," to show that it was not the viceroy that was meant.

¹⁶ On this see above, p. 312, note ¶.

B 3.

Exemplum litterarum regis Portugallicæ ad Julium pontificem maximum.¹

[25 September 1507.]

Sanctissimo in Christo patri ac beatissimo domino, domino Julio, divina providentia summo pontifici, devotissimus ejus sanctitatis filius, Hemaueel, Dei gratia rex Portugallicæ et Algarbiorum citra et ultra in Africa, dominus Guiniæ et conquestæ navigationis ac icommercii Æthiopiæ, Arabiæ, Persiæ atque Indiæ, humillima pedum beatorum oscula.

Lætetur et exultet sanctitas vestra, beatissime pater, quod a solis ortu usque ad occasum germinat omnipotens Deus justitiam et laudem suæ Catholicæ fidei et isti sanctæ sedi coram universis gentibus, dum pro sua pietate in finibus terræ prosperum quotidie iter facit, vobis subjiciens per nos christianæ religioni novas gentes ac terras. Quarre dissipentur jam inimici ejus et fugiant qui oderunt ipsum a facie ejus. Vident insulæ et timent; extrema terræ obstupent; conturbantur saraceni; dare videtur jam vocem suam Altissimus et moveri terra, mare et plenitudo ejus in maximum christianæ gloriæ et infidelium dejectionis portentum, adeo ut mysterium indicæ et orientalis operationis nostræ, quod adhuc privato forsitan decori nostro et utilitati inservire videri potuit, non tam nobis quam isti sanctæ sedi et christianæ reipublicæ revelatum jam et laboratum clarissime appareat. Nam, ut omittamus pleraque, quæ pro sua omnipotentia immortalis Deus per nostros adversus saracenos superioribus annis illic operatus est, et in dies operatur; quæ proxime pari ejus indulgentia nobis tributa; inde nobis nunc lætissima sunt allata, summatim, pro epistolæ modo, audiat læta sanctitatis vestra. Cui jam cognitum arbitramur misisse nos superioribus annis pro nobis viceregem in terras illas orientales, qui pro rerum quotidie incremento, ut in bonum augeri solent quæ adeo sunt, majoribus viribus et auctoritate expeditionem illam administraret. Is, factis plurimis in hostes excursionibus, proxime dominum Laurentium de Almeida filium armata classe misit ad infestanda hostium litora ac terras. Qui etiam, ut erat jussus, accessit ad insulam illam nominatissimam Taprobanam,² alterum aliquando orbem existimatam, nunc ipsorum lingua Zeylon³ appellatam; pro gestis⁴ ad postulata nostra responso, seu pacem seu bellum daturus. Applicans itaque ad portem maximi et potentissimi regis, qui sex alios imperat, insulæ regibus mittit patris legatos, quos secum ferebat. Eos rex ipse quo pacto exceperit,⁵ audiri pro rei⁶ novitate non indignum.⁷ Aula erat amplissima, in cujus extremo solium regium in altaris modum magnificentissime erat instructum.⁸ In eo sedit rex pro diademate, juxta patrium morem, cornua in capite habens, pretiosissimis, qualis insula⁹ fert, gemmis ornata. Circumstabant regium solium viri sex cum cereis magnis, quamvis interdium, accensis,¹⁰ tres a dextris,¹¹ tres a sinistris; multa etiam ac¹² magna candelabra argentea pariter incensa.¹³ Aulam ab utraque parte complebat¹⁴ magna procerum

et nobilium¹⁵ multitudo, relicto intermedio spatio, qua¹⁶ patebat liber et inoffensus ad regem aditus. Ibi¹⁷ adeuntes legatos nostros rex honorificentissime suscipit,¹⁸ gratissime audit¹⁹ et humanissime ad postulata respondet,²⁰ omnia cum nostris obsequentissime pacificans;²¹ in quibus etiam se quotannis centum quinquaginta cantaria cinnamoni in ea insula excellentissimi nobis pensurum pollicetur,²² primam illico pensionem persolvens; in quam quidem summam nostri perinde²³ consensere, si gratum ad²⁴ viceregi nostro foret. Confecto sic Taprobanæ insula²⁵ negotio, nostri inde degressi nonnulla oppida saracenorum maritima in continenti sita expugnare et igni consumpsere, captatoque simul toto mari magno hostilium navium numero, et in his ingenti preda, infesta et sollicita omnia saracenis reddidere.

Ex oppido Abrantes,²⁶ xxv° septembris MDVII.

¹ There are several variants of this letter extant. The copy from which I quote is printed in the *Diarii di Marino Sanuto* vi. 198–201 (see *infra*, B 6). Another (very faulty) is printed in Rebello da Silva's *Corpo Diplomatico Portuguez* i. 116–19, the source from which it was taken being thus described in a footnote:—"Ex Cod. Vat. Regio 557, pag. 88. Copy of the xviiith century. in the Bibliotheca de Ajuda. Symmicta lusitanica, MSS. of the Vatican. tom. ii. f. 212." There is also a manuscript copy in the British Museum Library (Bibliotheca Harleiana 3468—Tractatus vari historici, philolog., &c.. p. 115). This letter and that to the cardinals (see *infra*, B 4) were printed at Rome (probably) in 1507(?) in the form of a small quarto pamphlet, in black letter, with the title: *Epistole serenissimi Regis Portugalie de victoria contra infideles habita. Ad Julium papam Secundum et ad sacrum Collegium Reuendissimorum [sic] dominorum Cardinalium*. There is a copy of this rare pamphlet in the Grenville Library at the British Museum (G. 6953. 1.), in which is pasted a slip with the following manuscript note (? by Heber, the former owner of the book): "Emanuelis Epistola ad Julium 2 de victoria 4° 1507. I have another different edition with the same date, which contains an additional letter of King Emanuel to the College of Cardinals: it is difficult to ascertain the priority of these two editions." I do not understand the reference here to another different edition containing an *additional* letter to the cardinals: the only letter to the cardinals that I know of is that quoted from below (B 4), and this, as I have said, is printed in this edition. The letter to the pope occupies four pages, and that to the cardinals two. Of this edition the British Museum Library possesses another defective copy, wanting the title-page and the letter to the cardinals. In the Grenville Library of the British Museum are two copies of a different edition of the first letter. One of these copies (G. 6953. 2.) is bound up with G. 6953. 1. (and it seems probable that the slip referred to above ought to have been pasted in this second pamphlet, and not in the first). The title of this edition is: *Epistola serenissimi Regis Portugalie ad Julium papam Secundum de victoria contra infideles habita*. The letter is printed in roman type, with very few stops: and there are transpositions of words, and slight variations and omissions. Like the other edition, this one has no date or place of printing; and it is difficult to judge whether this was a hastily printed first edition, or a carelessly printed second edition. The other copy in the Grenville Library (G. 6952. 3.) is identical with G. 6953. 2. It is bound up with some other pamphlets, and contains a slip with a manuscript note (by Grenville), from which I quote the following: ".

Epistola Emanuelis R. ad Julium P. s. a. [sine anno] sed 1507-9.—The epistle at the end of this volume, from Emanuel King of Portugal to Pope Julius 2d, 1507, is a very curious and rare document. Francesco [sic] d'Almeida was the first Portuguese Viceroy in India where he continued from 1505 to 1509 when he was succeeded by the famous Albuquerque.—Laurentius [sic] Almeida son to Francesco first landed in Ceylon in 1505, and in this Epistle a curious account is given of his reception by the King of Ceylon—this is followed by an account of a great naval engagement with the fleet of the King of Calicut, which was defeated by Laur: Almeida who is said in the epistle to have also discovered a great island in 1506 (probably Madagascar).—..... The Epistola Emanuelis is evidently printed by Minutianus probably between 1507 and 1509, which latter is the date of the accompanying oration." The "accompanying oration" is one of the pamphlets bound up with this letter, and bears the title: *Oratio Jacobi Antiquarii pro populo Mediol.*; while the imprint is: "Impressum Mediolani per Alexandrum minutianum die xxviii. Junii. Mccccix. cura & impensa Franchini Gaffurii laudensis cum privilegio." Why the mere coincidence that the epistle happens to be bound up with the oration should have led the great bibliophilist to such a strange conclusion as that expressed at the end of his note I cannot understand, nor do I see anything to warrant his statement. Nor does the epistle, as he states, credit D. Lourenço de Almeida with the discovery of a great island in 1506; the island referred to (doubtless Madagascar, though the location given in the letter better suits Socotra) was "discovered" by "another fleet," that of Tristão da Cunha, as the king distinctly says. In the following notes I have given some variant readings, chiefly those of G. 6953. 1.

² The version in *Corpo Dipl. Port.* has "Caprobanam."

³ G. 6953. 1. and C. 32, f. 14. have "Zoylam"; G. 6953. 2. and G. 6952. 3. have "Toilo"; *Corp. Dipl. Port.* has "Zoilon"; and *Bibl. Harl.* 3462 has "Ceyloni."

⁴ In G. 6953. 1. "gentis."

⁵ G. 6953. 1. "acceptaverit."

⁶ G. 6953. 1. omits.

⁷ G. 6953. 1. adds "remur."

⁸ G. 6953. 1. "extructum."

⁹ G. 6953. 1. inserts "illa."

¹⁰ G. 6953. 1. "interdum incensis."

¹¹ G. 6953. 1. inserts "et."

¹² G. 6953. 1. omits.

¹³ G. 6953. 1. has "argentea candelabra candelis desuper positis pariter incensis."

¹⁴ G. 6953. 1. "complebant."

¹⁵ G. 6953. 1. inserts "aderat."

¹⁶ G. 6953. 1. "quo."

¹⁷ G. 6953. 1. "Ubi."

¹⁸ G. 6953. 1. "suscepit."

¹⁹ G. 6953. 1. "audivit."

²⁰ G. 6953. 1. "respondit."

²¹ G. 6953. 1. "pacificando."

²² G. 6953. 1. "pollicebatur."

²³ G. 6953. 1. "ita."

²⁴ G. 6953. 1. "id."

²⁵ G. 6953. 1. "Taprobane insule."

²⁶ Cf. Barros II. rv. iii. The king was staying in Abrantes, because of the prevalence of plague in the capital (see *Com. of Af. Dalb.* i. 20)

B 4.

*Sacro reverendissimorum in Christo patrum dominorum cardinalium sanctæ romanæ atque universalis ecclesiæ venerandoque collegio.*¹

[25 September 1507.]

.....Excederemus profecto epistolæ modum, si singula superioribus illic gesta annis percurramus. Verum, quæ inde lætissima nunc nobis sunt allata, latius, ut facta sunt cognosci digna, sanctissimo Domino nostro scribimus, quorum communem gratulationem sanctitatem suam vestris reverendissimis patribus impartituram pro comperto habemus. Ea sunt in primis, factam proxime nobis tributariam famosissimam illam Taprobanam insulam scriptisque maxime celebratam; habitam simul a nostris insignem de saracenis maritimam victoriam; et nonnullos alios de divina indulgentia successus, quibus maxime christianum nomen cum magna infidelium admiratione et terrore exaltatur in universa terra

Ex oppido Abrantes, xxv^o die septembris, anno 1507.

¹ I quote from the copy printed in the *Diarii de Mar. Sanuto* vii. 201-3. There is also a manuscript copy in the British Museum Library (Bibl. Harl. 3462, p. 118). As mentioned above (B 3, note ¹), the letter was printed in 1507 (?) after the king's letter to the pope.

B 5.

*Oration of Fr. Egidio de Viterbo to Pope Julius II.*¹

[21 December 1507.*]

.....Sed ut id deus felicitati daret tuæ, quod nemo ante te dari posse, ne suspicatus est quidem, Emmanuelem in Lusitania Regem creat iustitiâ, moderatione, ac præcipue summa pietate præditum facit: ut hic regno potiretur in regnum vocatus, sese, ingenium, Regni vires Divino cultui dedicat: naves per altum oceanum mittit gentes, populos que quæsitum, ad quas perferat christianum nomen: multos id annos agit multo labore: multa impensa: denique universum Africæ littus permensus, quod magno oceano alluitur, quantum à freto Gaditano et à columnis hereuleis in Arabicum et Erithreum patet, multis in indico littoris gestis: Principibus, populis que debellatis, aromatum mercatora Ægypti, Syriæ que Regi ablata; tandem Taprobanen penetrat alterum (ut inquit Plinius) orbem terrarum habitam. Numerosisimam classem indorum, christo potius ope, quam virium magnitudine fretus, vincit: victor Taprobanes Regem magnum sex imperantem Regibus tributum solvere quotannis compellit, primus que aperuit eo sub cælo christianum

nomen ; primus eo sub cælo jecit fundamenta religionis tuæ : ac sacri imperii tui fines primus eousque gentium propagavit. Tu nuncio accepto fælicitatis et christianæ et tuæ, Deo acceptum refers ; supplicationes decernis ; sollemnia statuis ; Senatū accersis ; populum que romanum, te in vaticana æde spectandum exhibes, dum ad aram maximam pronus supplex que gratias deo agis. Eo die, qui Divo Thomæ indorum consecratus est, quem nostris affuisse creditum, bene apud indos gestis rebus, jussisti coram te sacrosancto que senatu astante me verba habere de ingenti beneficio, quod à Deo optimo maximo grex tuus te pastore susceperat ; quod te præsedere Lusitanus Rex fines sacratissimi imperii tui ad indos usque produxisset ; quod in novum terrarum orbem inventum auream attulisset ætatem. Cum que obtemperassem ac pro rostris de ætate aurea, quam India ab aureo Rege receperat, non nihil in medium adduxissem. Mandas iterum quæ dixeram scriberem ; ac legenda darem ; feci equidem quod præcis ; atque ea quæ de aurea ætate, de que partibus ejus quatuor, ac felicissima Lusitani Regis victoria eo die disserui, in libellum redegi

* * * * *

. Nunc cum Lusitanus Rex indica illorum maria vicerit, superbos, contumaces que animos domuerit, atque auream vitam agere jusserit ; jam tertio ad dicendum vocatus, de tertia victoria tua, quam tibi Apostolicus Rex peperit, ut potui locutus sum. Has vero tres institutiones, quibus in has tres gentes fælicissime usus es, a latino scriptore constitutas invenio. Ubi optimi principis mores in rebus à te præclare gentes recognoscas. Nam Perusia, Bononia, Taprobane (uti æquum justum que fuerat) pacem, veniam, bellum pacasti ; faciles difficilibus pepercisti ; superbos bello armis que debellasti.

¹ The manuscript of this oration, beautifully written on 80 leaves of parchment (the first is missing), with gilt edges, and bound in pink satin, is in the public library of Evora in Portugal. A description of it, with several lengthy extracts, is given in tom. i. of Cunha Rivara's *Catalogo dos Manuscriptos da Bibliotheca Publica Eborense* ; and it is from this volume that I quote the passages here given. Frei Egidio de Viterbo was, at the time when he delivered this oration, prelate-general of the Augustine order ; he afterwards became cardinal, patriarch of Constantinople, &c. This oration, which is not mentioned in any of the works referring to the author, is entirely a eulogy of the pope and King Manuel.

² There is no date to the manuscript, but in the first passage quoted the oration is said to have been delivered on St. Thomas's day (21 Decem-ber), and that the year was 1507 is proved by the reference to Taprobane and by the statement in the letter from Rome quoted in the diaries of Marino Sanuto (see *infra*, B 6). Curiously enough, the eminent scholar to whom we are indebted for that priceless treasure the *Archivo Portuguez-Oriental*, as well as other valuable works, has blundered over the date. After the last extract he puts the following note : " We quote all these passages in full in order that we may arrive at a conclusion as to the epoch of this oration, which we have no hesitation in placing on St. Thomas's day in the year 1505. For shortly before had taken place the expeditions of the pope against Perugia and Bologna, and it

was in the above year that D. Lourenço de Almeida, son of the first viceroy of India, D. Francisco de Almeida, went with Portuguese for the first time to Ceylon, or Taprobane, and made a chief of it tributary to the king of Portugal. (*Vide Couto*, Decad. 5, l. 1. cap. 7, and Castanheda, l. 2, cap. 24.)” The numbers of the chapters in both these references are wrong (see *infra*, B 7 and B 11). Couto is the only one of the two writers who distinctly says that Dom Lourenço’s landing took place in 1505, though Castanheda certainly seems to imply it. But the papal expeditions against Perugia and Bologna took place in 1506, and not in 1505 as Sr. Rivara states; so that the oration could not possibly have been delivered in the latter year. That 1507 is the real date there cannot be the least doubt.

B 6.

*I Diarii di Marino Sanuto*¹ vii. 235.

[December 1507.]

21st, St. Thomas’s Day

From Rome.—Secret matters *inter caetera*. That the pope had read in consistory a letter written to him by the king of Portugal, saying that his caravels had gone as far as the island of Taprobano [*sic*]. And that they had spoken with that king, who had on his head a crown of the most beautiful gems, and, although it was day, there were hidden (?)² candles, so that the gems might be seen shining. Which king had agreed to be a friend of the king of Portugal’s, and his tributary with a certain amount of spices, &c., *ut in litteris*; I shall note the treaty below. And that the pope had said that he was thinking of bestowing some title of honour upon the king of Portugal, just as the king of France has that of Most Christian, the king of Spain that of Catholic, etc.

* * * * *

28th. After dinner there were prayers. And the following letters were read:

*From Rome from the orator.*³—Sends the copy of the letter from the king of Portugal to the pope, regarding the progress to the islands discovered by his caravels, which had gone as far as the island of Taprobana, the copy of which shall be entered below.⁴ And on the 21st, St. Thomas’s day, a solemn procession was made on this account in Rome,⁵ etc.

¹ This invaluable work, containing diaries written in Venice by Marino Sanuto the younger, and extending over a large number of years, has been published by the Deputazione Veneta di Storia Patria.

² The word in the original is *impiati*, the meaning of which I am not sure of.

³ The word “orator” is here used in the sense of “ambassador” (see *New Eng. Dict.* s.v.). The person referred to was Zuan Badoer (or Giovanni Badoaro), doctor and knight, a member of a noted

Venetian family. He left Venice for Rome on 9 March 1507. Afterwards he went as ambassador to Spain, and then to France (see Rawdon Brown's *Cal. of State Papers—Venice*, &c., vols. 2 and 3 *passim*).

⁴ Through some error the copies of the king's letters to the pope and cardinals are printed, with a number of other documents, after the diarist's entries for November: they should evidently have been inserted at the end of December.

⁵ See *supra*, B 5.

B 7.

*Instructions given by King D. Manuel regarding certain paintings that he commanded to be made, in which were to be depicted the discovery of India, various costumes thereof, and some of the incidents of the first years of its conquest.*¹

[1510 ? ²]

* * * * *

Item. The discovery of Taprobana: and how the ships arrive and set up the *padram*; and how the king of the country received the ambassadors, and the fashion in which they say that he was; and how those of the country bring loads of cinnamon to put in the ships.

¹ These are printed in *Alg. Doc.* 516–18.

² The document is undated, but I think we may safely place it at the end of 1510, for the following reasons: It records the burning of Calicut, which took place in January 1510, and the news of which would have reached the king by the ships that arrived at Lisbon in October following; but it does not refer to the capture of Goa in November 1510—an event that the king would hardly have failed to mention had he known of it when he gave these instructions.

B 8.

Castanheda ii. caps. lxx., lxxiii.

[November 1505 ?]

..... And after this, on the 2nd of November, the viceroy began to send the ships that had to return to Portugal, to take in their cargoes. And he also sent some ships and smaller vessels to relieve the fortresses of Cananor and Anjadiva: and he ordered Dom Lourenço to go in the ship of Felipe Rodriguez¹ to the islands of Maldiva, which are sixty leagues from the coast of India, and to make prizes of many ships and junks which he knew for a fact were passing by there, both from Malaca, and from Çamatra, and from Bengala, and from other countries of the southern parts, and which were carrying much spicery, drugs, gold, silver, and

other riches in great quantity; and he sent with him Lopo Chanoca² and Nuno Vaz Pereira.³

* * * * *

Dom Lourenço having set sail for the islands of Maldiva with the other captains, as his pilots were as yet new to that course, they did not take heed to guard against the currents, which are strong in that latitude, and these made them miss the islands and brought them in sight of the cape of Comorim where land winds were blowing, and by the help of these Dom Lourenço directed his course for the island of Ceilão, whither the viceroy had ordered him to go

Dom Lourenço directing his course toward this island made landfall at the port of Gabaliquamma,⁴ which our people now call the port of Gale: and his arrival becoming known to the lord of the country, the latter feared that he would burn the ships that were in the port, or devastate his country, as he had not enough men to venture to defend it; wherefore he at once sent a message to Dom Lourenço offering peace and friendship with him, and that he would do all that was in reason. And as this agreement could not be made without someone of our people's going ashore, the king having given hostages for the safety of the person who should go, Dom Lourenço sent on shore a knight named Fernão Cotrim⁵ that he might make the compact: and he having arrived at the king's palace⁶ found him at the end of a very large room seated on a very handsome dais made in the form of an altar; he was clad in a silken *bajo*,⁷ which is a garment after the fashion of a close jacket, and girt with a cloth likewise of silk which reached to his knees, and thence downwards barelegged, with many rings on his fingers and toes; and in place of a crown he had on his head a cap with two horns of gold and very fine precious stones, and he had earrings of the same. On each side of the dais were three of his gentlemen who held lighted wax candles although it was day, and there were also many other lighted Moorish candlesticks of silver in every part of the room, which was full of many gentlemen and nobles of the country, and between them was left a passage, by which Fernão Cotrim came to where the king was by whom he was very well received, and they thereupon both agreed to friendship and a treaty, and that the king should give every year as tribute to the king of Portugal one hundred and fifty quintals of cinnamon; and this was agreed to on condition that the viceroy were satisfied with it, and this cinnamon was at once delivered to Dom Lourenço. And whilst it was being loaded, he ordered to be erected on the shore, with the consent of the king, a stone *padrão* with the arms of Portugal at one end and the device of the sphere at the other⁸: and this in token that that country was at peace with the Portuguese. All these matters having been concluded, Dom Lourenço turned about for Cochim, and on the way captured several Moorish ships.⁹ And on his arrival at Cochim he gave the viceroy an account of what had befallen him, and of what had been agreed to with the lord of Gale, whom he thought to be the proper king of Ceilão; and he was greatly pleased with the cinnamon, to be able to send it to

Portugal by João da Nova or by Vasco Gomez Dabreu, whose ships had begun to load with a view to leaving for Portugal. And he afterwards dispatched João da Nova and Vasco Gomez Dabreu, to whom he intrusted an elephant to take to his lord the king on account of its being so strange a beast in Portugal, whither they set sail in February 1506, and João da Nova was driven back from the Cape of Good Hope, his ships making so much water that he was not able to proceed further, and wintered at the island of Zanzibar; and Vasco Gomez wintered in Moçambique, because it was very late when he arrived there, and the westerly winds were already blowing.¹⁰

¹ In chap. xxv. Felipe Rodriguez is mentioned as captain of the ship *Spera* (*Esphera* or *Esfera*).

² See *supra*, B 2.

³ See *infra*, B 9.

⁴ See *infra*, C 22, note ²⁷.

⁵ See *infra*, B 9, B 10.

⁶ Cf. what follows with the account in B 3.

⁷ Malay *bájú* (see *Hobson-Jobson* s.v. "Badjoe").

⁸ The arms and device were one on each *side*, not at each *end* (cf. B 2, note ¹²). The sphere was a device bestowed upon Dom Manuel by King João II. Regarding the *padrões* see *Three Voy. of V. da Gama* 73, 141: *First Voy. of V. da Gama* 169-7

⁹ Cf. B 9.

¹⁰ On the foregoing see *supra*, p. 298.

B 9.

Barros I. x. v.

[1506 ?]

The Moors who engaged in the traffic of the spiceries and riches of India, seeing that with our entrance into it they could no longer make their voyages because of these armadas that we maintained on the Malabar coast, at which they all called, sought for another new route by which to convey the spiceries that they obtained from the parts about Malaca, such as cloves, nutmegs, mace, sandalwood, pepper, which they obtained from the island of Çamatra at the ports of Pedir and Pacem and many other things from those parts; which route they followed by coming outside of the island of Ceilam and between the islands of Maldiva, crossing that great gulf until they reached the mouths of the two straits that we have mentioned,¹ in order to avoid this coast of India which we had closed to them. When the viceroy learnt of this new route that they were taking, and also of the island of Ceilam, where they loaded cinnamon because all that was to be found in those parts was there, on the ground of the great importance that it would be to the king's service to stop that route, and to discover

that island and also those of Maldiva, by reason of the coir that was obtained from them, which was the one essential for all the Indian navigation, all the rigging being made of it,² he determined to send his son Dom Lourenço on this enterprise, it being the monsoon weather for that passage. The latter took nine sail of those that formed his armada; and owing to the little knowledge that our people had of that route, although they took with them some natives, they were carried by the currents to the island of Ceilam, which the ancients call Tapobrana, regarding which we shall give a copious relation when we come to describe what Lopo Soares did there when he founded a fortress in one of its ports called Columbo,³ which is fourteen leagues above that of Gale, at which Dom Lourenço made landfall, which is at the point of the island, in which he found many ships of Moors, who were engaged in loading cinnamon, and elephants for Cambaya, who, when they saw themselves surrounded by our armada, in order to secure their persons and property, pretended to desire peace with us, and that the king of Ceilam had enjoined upon them that when they crossed over to the coast of India they were to notify the viceroy to send him some person to conclude peace and friendship with the king of Portugal on account of his proximity to his captains and the fortresses that they were making in India, and also because of the cinnamon that was in that island of his and other wares, which he could give him for the loading of his ships by way of trade. As Dom Lourenço had set out to discover and capture the ships of the Moors of Mecha which were sailing from the strait to Malaca by that new route, and as by the cargo of elephants that these had, as well as from other information that he received from the native pilots that he carried, he knew them to be ships of Cambaya, with which we were not at war, he did not wish to do them any harm, and also because of arriving with an armed force at that part where the Moors had spread the report that the Portuguese were sea-pirates; so he rather accepted what they offered on behalf of the king. And by their means he got together some of the people of the country, with whose approval he erected a stone *padram* on a rock, and upon it ordered to be cut some letters saying how he had arrived there, and had discovered that island; and Gonçalo Gonçalves, who was the stone-cutter that did the work, although he was not a Hercules to boast of the *padrões* of his discovery, because these were in a place of such renown, put his name at the foot of it; and so Gonçalo Gonçalves remains more truly the stone-cutter of that pillar than Hercules is the author of many that the Greeks attribute to him in their writings. When the Moors saw that Dom Lourenço trusted in the words that they spoke to him on behalf of the king, they pretended to go and come with messages to him, and finally brought four hundred *bahares* of cinnamon of that which they had collected on shore for loading, saying that the king in token of the peace and amity which he desired to have with the king of Portugal, although it had not been agreed to by his ambassadors, offered him all that cinnamon to load his ships with, if he wished. And because Dom Lourenço said that he wished to send a message to the king, they

offered to take and bring back the persons that he should select for that purpose, who were, Payo de Sousa,⁴ who went in the capacity of ambassador, and for his clerk Gaspar Diaz son of Martim Alho a resident of Lisbon, and Diogo Velho⁵ a servant of Dom Martinho de Castello Branco the king's comptroller of revenue, who afterwards became Conde de Villanova, and one Fernam Cotrim,⁶ and other persons of his service. These being intrusted to the Moors who had arranged this expedition were conducted through such dense thickets that they could scarcely see the sun, taking so many turns that it seemed to them more like a labyrinth than a direct road to any place⁷; and after travelling for a whole day they brought them to an open place, where were many people, and at the end of it were some houses of wood which seemed to be something superior, where they said he [the king] had come to take his pleasure, that place being a kind of country-seat. At the end of this open space, at a good distance from the houses, they made them wait, saying that it was not proper for them to go further without leave of the king; and they began to go and come with messages and questions to Payo de Sousa, as if they came from the king, feigning to be pleased at his coming. Finally, Payo de Sousa with only two of his company was conducted to that place, where, according to the Moors, was the person of the king; and as soon as they reached him he at once dispatched them, feigning to be pleased at seeing things of the king of Portugal's, giving thanks to Payo de Sousa for coming and to the captain-major for sending them to him; and saying that as regarded the peace and amity that he desired to have with the king of Portugal, he would send his ambassadors to Cochij, and that in token thereof he had sent the cinnamon, and would order to be given them whatever they might need for the provision of the armada; and with this he dispatched him. The which manner of Payo de Sousa's going and coming at the hand of these Moors, and his arrival at this place, and the conversation that he had with this person, who they told him was the king of Ceilam,—the whole was a trick of theirs, and in a way a representation of things that did not exist, part of which Payo de Sousa understood, and afterwards knew of a truth. For this man with whom he spoke, although from the bearing of his person and the reverence paid to him by his people he seemed to be what they said, was not the king of Ceilam, but the lord of the port of Galle⁸; and others had it that it was not he, but some other noble personage, who by his order and the artifice of the Moors showed himself to our people in that manner and place, to the end that for that time they might secure their ships; and whilst they were occupied in this, they would collect the goods that they had on shore, which they did. When Dom Lourenço learnt from Payo de Sousa what had passed, and perceived how matters stood, he dissembled with the Moors; because, as that island was under a heathen king (although at that time there was no certain knowledge of its affairs), it seemed to him that whether it were he with whom Payo de Sousa spoke, or not, the whole might have been arranged by him, all the heathen kings being very superstitious in their

mode of communication with us, and that perchance the Moors had frightened him that he should not do it; so without desiring to inquire further into the matter, because the weather would not allow his remaining longer in that port, where he ran risks, he set sail to return to Coeluj. And because Nuno Vaz Pereira,⁹ through the rough weather that had forced them to leave, broke the main yard of his ship, he found it necessary to return once more to the port, where he found that our *padram* was already blackened by fire, as if they had lighted one at the foot of it; and on asking the reason of this of the Moors who were there, they laid the blame on the heathens of the country, saying that the latter being an idolatrous people had their fancies about a thing wherever it was made. Nuno Vaz, dealing with the matter in the form of threats if they carried this further, overlooked the past offence; and having mended the yard of his ship returned to Dom Lourenço, whom he found on the coast of India in a place called Berinjam,¹⁰ which is in the lordship of Coulam. And because some Moors who were there had taken part in the murder of Antonio de Sá,¹¹ Dom Lourenço went ashore and burnt the village, in which affair moreover there was bloodshed, both of the natives and of our people, owing to the resistance that they made to the landing and the burning of certain ships that were there awaiting cargo; and having taken this revenge for the injury that those Moors had done,¹² Dom Lourenço left for Cochij, where he arrived with his fleet.¹³

¹ The reference is to Dec. I., liv. viii., cap. i., in which Barros describes the spice trade as it was carried on before the Portuguese arrived in India. The "two straits" are those of the Persian Gulf and the Red Sea.

² Cf. C 12. In Dec. III., liv. iii., cap. vii., in describing the Maldivé islands, Barros treats of coir in more detail.

³ See *infra*, C 24 and C 26. It is in Dec. III., liv. ii., cap. i., that Barros fulfils the promise here made.

⁴ In Osorio, *De Rebus Emmanuelis*. &c. (1571), 170, this name appears as "Pelagius Sousa," and in this form it occurs in later writers (*cf.* Val. *Ceylon* 90). Regarding Payo de Sousa see *supra*, p. 302, note †.

⁵ According to Bar. (II. ii. viii.) this man was killed with D. Lourenço at Chaul in 1508.

⁶ See B 8, B 10.

⁷ Cf. B 13.

⁸ See *infra*, C 24.

⁹ See *supra*, p. 307, note †.

¹⁰ In liv. ix., cap. i., of this Decade Barros spells the name "Berinjan." The place intended is Vilinjam near Covelong Point, some miles south of Trevandrum in Travancore.

¹¹ At Quilon in October 1505, as Barros relates in liv. ix., cap. iv., Dom Lourenço avenged the murder in November by burning all the shipping in the port.

¹² It will be noticed that neither Castanheda nor Correa mentions this affair.

¹³ It is strange that Barros says not a word regarding the reception by the viceroy of the news of his son's "discovery."

B 10.

Correa i. 643, 644, 646.

[? August 1506.]

The work of the fortress [of Cochii:] having been completed,¹ and the armada having also made an end of repairing, the viceroy, having had information of the many ships that traversed the islands of Maldiva to Meca, which came from Pegú, and Siam, and Bengala, resolved to send Dom Lourenço with the armada, to see what like were the islands, and if the ships that passed could be captured, and allotted to him two ships and two caravels, a galley, and a brigantine that had been recently built.²

* * * * *

The viceroy ordered Dom Lourenço to set sail in a good ship, the captain of which was Lopo Cabral, and in the other Manuel Telles, and Gonçalo de Paiva and Pero Rafael in caravels, and André da Silveira in the galley, and André Galo in a brigantine that had been recently built;³ and in this fleet gentlemen and armed men, as many as three hundred men well equipped, and the armada provided with all that was needed, which left Cochym on the 1st of August,⁴ carrying good pilots supplied by the king of Cochym.

* * * * *

Having set sail from Cochym Dom Lourenço went traversing the islands of Maldiva;⁵ and because the pilots did not take good heed to avoid the currents, they sailed for eighteen days without seeing the islands, and made landfall at Ceylão, whither the currents took them, and by good luck came to land in the principal port of the island, called Columbo, which Dom Lourenço entered with his armada, and anchored where were many ships, which were loading cinnamon and very small elephants, in which there is a great trade to all parts, especially to Cambaya, many being produced in this island, and in this port they were also loading fresh coconuts and dried ones from which they extract oil, and much arecanut, all of which fetches high prices in Cambaya; and were also loading masts and yards and timber, which they were taking to sell in Ormuz with cinnamon, because this island of Ceylão has good wood in great abundance.⁶ On entering Dom Lourenço ordered the brigantine to overhaul all the ships, to see what was in them and whence they were, which found three large ships of Calecut with cinnamon and elephants, and other ships of the said Cambaya. All the ships were without people, because all had fled on shore on seeing Dom Lourenço entering. Then Dom Lourenço sent his men in the boats to haul up the anchors of the ships of Calecut, and brought them amidst our ships.

The Moors of these ships had told the king of Ceylão great evils of us, that we went about the sea robbing and murdering, and that whatever we did not want, in order that it might be of

service to no one, we burnt ; and that on land we took merchandise by force, and paid what we liked ; and that we carried off the women and children ; and many other evils, which the king and all the people had fully believed, because all told the same story ; and that the captives, fastened with chains, were employed in rowing the galleys.⁷ The Moors, seeing our armada entering, hastened to tell it to the king, that our armada was in the port, at which he was much affrighted, and at once took counsel thereon as to what he ought to do, when it was resolved, by the advice of the Moors, to send a large force to the port to prevent our people from landing ; and he sent a message to ask what he wanted in his port, in which he would give him all the entertainment that was meet. Dom Lourenço sent him reply that he was going to the islands of Maldiva, and that the pilots had navigated badly, so that he had chanced to come there ; that he was a merchant, that he carried goods which he sold, and bought those that were on land, with good peace and friendship, if he wished to have it and agree to it with him, and if not that he would go his way when the weather served, because he was a slave of the king of Portugal's, who was lord of the sea of the whole world, and who did good to the good who desired his peace, and evil to the evil.

The king having heard this answer was very glad, and relieved from the fears that the Moors had instilled into him, saying that it was well that they did evil to those who did not desire peace ; and yet being in doubt, not being certain of the truth of the message, because the Moors had told him that our people with professions of friendship entered countries, and afterwards committed robberies and other evils in them, the king, in order to know the truth, sent word to Dom Lourenço, with a present of much provision, that he rejoiced and was very glad on hearing his message, and that he desired all peace and friendship, and asking that therefore he would send someone to speak with him, and to arrange the matters that he desired ; and for the security of the person who should go he sent his ring, which was the token of his truth ; this was a catseye, a stone of great price, which he sent by a trusty man of his household. Dom Lourenço paid much honour to the messenger, showing great pleasure, and ordered to be given him a piece of fine scarlet cloth, and returned to the king his ring, saying that in the case of low people it was necessary to take the wife and children in pledge of truth, but from great kings like him he did not require any pledge but his word, which was better than gold or precious stones. And with this message he sent Diogo d'Almeida,⁸ a gentleman, to whom he gave directions regarding all he was to say and do ; and as a present he sent the king a piece of velvety crimson satin, asking his pardon, as he had nothing else wherewith to pay for the provision that he had sent : because if he had come direct to Ceylão he would have brought wherewith to make a present such as befitted so great a king. Diogo d'Almeida, well clad, with four men went with the messenger, and on arriving the king did him much honour, because

he had never seen any Portuguese, and on hearing the message of Dom Lourenço was very glad, and received the present, saying to his followers that were with him : " The Moors carried on their business with these men with evil deeds, and therefore found evil in them ; and all that they said of them is false. Inasmuch as I now see that these men are so good that they would rather trust in my word than in my pledge, and without hostages come and speak with me inside my house ; therefore I say that they are good men, and only do evil to those that wish to do them evil." He then inquired of Diogo d'Almeida what it was the captain desired, and he replied : " Sir, the captain of that armada is the son of the viceroy of India, and they are slaves of the king of Portugal, the greatest lord that there is in the world, and they have come to India with many goods, to sell and buy with the folk who are good merchants, in all the countries that desire peace and treaty relations with them ; and to make war on any that may not desire peace, because the thing that they are most delighted to buy is good faith, which wherever they find it good they purchase for ever, and purchase it with very good deeds, even to giving their lives and whatever they have for their friends. But when they have thus agreed to a good peace, and break it without justice and reason, they then take vengeance with fire and sword. And towards their good friends they hold friendship as with own brothers, guarding their ports, and people, and vessels wherever they find them, because the Portuguese are lords of the sea. The captain has sent me to say to you, that if you shall approve of thus settling with him this friendship and good peace he will establish a trade with this country, and if you agree to this he will consider himself fortunate to have arrived at this port of yours ; he is now waiting for you to send him a reply regarding this, and says that if you conclude this peace with him, in order that he may know that you keep it firmly like a good friend, you will have to send him every year, when our ships come here, something good, as it shall please you, to be sent to the king of Portugal, in order that he may know that you continue at peace with him, and that he likewise may send you his gift ; because if you do not thus each year give this of your own goodwill, he will not know if you are his friend or not ; and by doing this your territories, and ports, and vessels will remain secure for ever, without anyone's making war on you or doing you harm. And if anyone should make war on you, they will send you an armada, and soldiers, and will help you against your enemies like own brothers ; and if you do not desire this peace you will remain his enemy, and they will do harm to everything of yours wherever they shall find it : on which you can take counsel, and choose what you approve of."

The king, while listening to what Diogo d'Almeida said, had settled in his heart what reply he would give, and answered that he was very pleased with all that he had said, if only the deeds should be equal to the words ; and that he desired peace as he had said, as to which he must give him his bond, and that every

year he would give for the king of Portugal of the best that there was in his country, which was cinnamon and elephants, and that if he wished he would at once order the ships to be loaded with cinnamon, and with two elephants, and that in the bond he should say that as son of the viceroy he had concluded this peace with him, and that every year he would send him a ship-load of cinnamon and two elephants.⁹ Diogo d'Almeida replied, that he also must give his bond for what he had said and promised, signed with his own hand, and by his prince and governors, "and the bond that you ask for," he added, "order it to be written on your *olas*, and the captain will sign them." This seemed good to the king, and he immediately had his bond drawn up on a strip of gold, of what he thus promised to give every year, and signed it with his prince and governors, and by one of these sent it to Dom Lourenço, who received it with many honours that he showed to the governor, who thereupon drew from a cloth a strip of silver which he gave to Dom Lourenço, who wrote thereon his bond of the peace that he was concluding with him, and because the ink would not adhere to the silver, it was written on paper pasted on the strip of silver, all written as Diogo d'Almeida had said, and Dom Lourenço signed it, and sealed it with the seal of the arms in ink. This deed the governor likewise wrote on his *olas*, which Dom Lourenço also signed; and he sent the king a piece of scarlet cloth, and another of black velvet, and to the governor he gave a piece of red satin, and six scarlet barret-caps. With which the king was greatly pleased, saying that Dom Lourenço had given him more than double the value of what he had to give him. Then the king sent him a present of provision for the whole armada, consisting of many fowls, and figs,¹⁰ and coconuts which are eaten shell and all,¹¹ and sweet oranges, of which all the woods are full, and lemons, and other fruits, and sweet herbs, and the rest of the natural forest consists of cinnamon trees, which are low with slender stems: a very salubrious country, and abounding in big springs and very large streams of excellent water, and throughout the forests bees' nests with much honey, wild birds and beasts of every kind in the world, so much that they wander amongst the houses.¹² The island is about three hundred leagues in circumference,¹³ and the whole is ruled by four kings,¹⁴ but this one is the principal, because only in his kingdom does the cinnamon grow.

* * * * *

..... when Dom Lourenço came here, the price of cinnamon the *bar*, which is equal to four *quintals*, was one cruzado, whereas it is now worth eight or ten.¹⁵

* * * * *

But to return to my subject, I have to say that the Moors of Calcut, whose ships Dom Lourenço had captured, seeing that the evil things they had told of us availed them nothing, and that the king had already concluded peace with Dom Lourenço, seeking some means of getting back their ships, collected a great present, and brought it to the king and his governors, begging him not to

allow their ships to be taken from them in his port, which was a great derogation of his honour; to which the king replied that they had not considered his honour when they told him lies, and now they desired that his honour should be preserved in order that they might not have their ships taken from them, which had been captured by those whom they had called robbers, so bad, according to what they said, that he could not ask for what they certainly would not give. The Moors answered: "Sir, we speak ill of the Portuguese, because they act so towards us, but do thou, as a great king, have pity on us." The king, in order to see whether what had been done were good or bad, sent and asked Dom Lourenço to release the ships, as by so doing he would gratify him. Dom Lourenço sent him word, that the king of Calecut being false and bad murdered the Portuguese who were in his city buying and selling, in order to steal what they had; and with this message he sent Fernão Cotrim,¹⁶ whom Dom Lourenço ordered to relate to the king all the evils that the king of Calecut had done, and that for this reason the king of Portugal had commanded that all merchants of Calecut, wherever they were found, should be burnt alive; and that on arriving at the port he had not ordered the ships to be burnt, because there were no Moors in them; but, as he had asked it, he gave him the ships, that he might use them as his own, and did not give them to the Moors, being still their enemy; and that he gave him the ships on condition that never again would he allow Moors of Calecut to enter his ports, because if he found them there he was bound to burn their ships. Then he ordered the ships to be taken back to the places where they had been anchored; for which the king sent him hearty thanks, saying that never again would he allow Moors of Calecut in his ports. Then Dom Lourenço, taking the cinnamon and the two elephants, prepared to depart, and sent word to the king, that he wished to leave behind at that port a memorial set up, in remembrance of the peace that had been agreed to. At which the king was much pleased, saying that he would be glad if he erected many memorials which would last for ever.

Then Dom Lourenço went on shore, and on a point of land which stood above the bay he erected a column of stone with the escutcheons of arms such as I have already described;¹⁷ and when the marble had been raised and put in its place, Dom Lourenço, on his knees, offered a prayer to the cross that was on it, and then retired. Then he sent word to the king that the peace which they had concluded would last as long as that stone which he was leaving there, with the obligation that if anyone entered that port to do him harm he would at once come to defend and aid him. The king sent answer that he would be glad if he erected other stones in all his ports; but Dom Lourenço sent back word that this stone sufficed for all his ports, because this port was the principal one.

Near this port were certain great rocky places, where was a big den below a great cave, in which for a very long time had been living a reptile with two feet, a great tail, a short neck, a flat head,

with big mouth and teeth, and a black body, like large shells¹⁸; which in process of time had grown to a great size, and the people of the country said that it was more than two hundred years that it had lived there; and that it came out of its den to seek for food, and did much harm, insomuch that the king obliged the people to bring food to it to the entrance of the cave, so that it might not come out; wherefore they fed it with fish from the sea, which they went to catch for that purpose. This having been related to Dom Lourenço, he conceived a great desire to go and kill this reptile with his halberd,¹⁹ and sent and begged the king earnestly to give him leave to do this. To this the king would not consent, saying that he did not wish him to venture his life over this, but that he would be very glad if he would send and have it killed. Wherefore Dom Lourenço thereupon ordered two falcons on carriages to be taken thither, and ordered a powder mine to be made at the place where it came to eat the fish, which was in the evening, and the falcons were pointed at the same place, and a very long train of powder was laid. Then he ordered a good watch to be kept, and on the reptile's coming out to eat they fired the falcons, which lit the mine, whereby the reptile was blown to pieces: to which the people could not come near, because of the great stench. I saw with my own eyes some bones of this reptile, which were shown to me in the year that the Rooms besieged the fortress of Dio.²⁰

Dom Lourenço having completed all his preparations and taken leave of the king set sail and arrived at Cochym, when the ships were already loaded to sail, namely, the four that I have already mentioned,²¹ and was received by his father with much pleasure, on learning the good news that he brought, giving many praises to Our Lord for directing him so as to discover so great a prize for our lord the king, without cost of money or trouble, as was the cinnamon for the kingdom, which was immediately loaded in the ships; and he ordered Diogo d'Almeida to go and tell the king of Cochym all about the Ceylão affair, because Dom Lourenço had been to see the king, and had told him nothing. And because the viceroy highly esteemed the speaking of the truth he did not care to write to the king anything that anyone had told him, when he did not know if they were telling him the truth, since, if he were told a lie, he did not wish to repeat a lie to the king; so, when any man came from another country he sent him to the king, that he might give him an account of what he had seen and learnt. For this cause he sent to the kingdom Diogo d'Almeida, that he might relate to the king the affairs of Ceylão, because, while Dom Lourenço was in Ceylão, he was the whole time on shore, and saw all that took place in Ceylão. And he gave these men whom he thus sent a letter of credit, which said, "Sire, this man went to such a country, and he will give your highness an account of what he saw and heard." The which he also gave to Diogo d'Almeida because he had to relate the deed of his son, which had happened in Ceylão: which he did not wish to write of to the king, it being a personal matter, and he considering it a breach of his honour if he should seem to glorify

himself, and saying that a man of good breeding should not relate his own actions, as he would thereby destroy their value.²²

* * * * *

In these ships of this year the viceroy sent a very small elephant, one of those brought by Dom Lourenço, which was the first that ever went to Portugal.²³

¹ See *supra*, p. 301.

² In the following paragraph Correa relates how, a second fleet having been placed under the command of Rodrigo Rabello for the purpose of cruising along the Malabar coast, Lourenço de Brito, the captain of Cananor, demanded that he should have command of one of the fleets. After a heated altercation, the viceroy justified his appointments to Lourenço de Brito's satisfaction, and the two parted good friends.

³ The composition of the fleet and names of the captains must be regarded with great suspicion. Manuel Telles, at any rate, had sailed for Portugal in January (see *supra*, p. 295).

⁴ Correa is the only historian who gives the date of Dom Lourenço's sailing, and it is incorrect, though not so very far out (see B 1).

⁵ So the Portuguese reads; but, as it is stated immediately afterwards that the Maldives were not sighted, we must take Correa's meaning to be that the ships were tacking about endeavouring to make the islands.

⁶ It will be seen that all through his account Cor. has many details wanting in Cast. and Bar. Unfortunately most of these must be considered inventions.

⁷ The accusations were only too true, as Correa well knew.

⁸ Cor. alone mentions this man. If he was not a creation of the writer's brain, he was probably related to the viceroy.

⁹ Cor. alone mentions the two elephants. The king may have given these, as well as the cinnamon, but they formed no part of the original tribute, though later this included elephants (see C 26).

¹⁰ Plantains, which the Portuguese designated "Indian figs" (see *Hobson-Jobson* s.v. "Plantain").

¹¹ Probably young coconuts (*kurumbas*) are meant.

¹² Cf. C 22.

¹³ Varthema (A 18) says "1,000 miles," which is less than Correa's estimate, since the Portuguese league was about $4\frac{1}{4}$ Italian miles (see *First Voy. of V. da Gama* 245).

¹⁴ Cf. A 18.

¹⁵ See B 1, note 6.

¹⁶ See B 8, B 9.

¹⁷ See B 2, note 12.

¹⁸ Whiteway (*Rise of Port. Power in India* 108 n.) thinks that this is "a distorted description of a crocodile."

¹⁹ The halberd was Dom Lourenço's favourite weapon (see p. 293, n. §).

²⁰ Apparently Correa means that he saw the bones in Ceylon. If so, he was probably on board the *catur* which, he says, called at Ceylon in September 1538, on its way to Choromandel carrying the news of the coming of the Rooms (Turks) to besiege Diu (Cor. iii. 882, iv. 27).

²¹ The reference is to i. 645-46, where, after recording the arrival in India from Moçambique, in August 1506, of Pedro Coresma (!) and Cide Barbudo (see p. 303), Correa continues: "The viceroy commanded to repair these ships, and careen them, because they were large and now of the past year, and if they remained in India would utterly perish; and he also commanded to repair the ship *Judia* (!), and the *Condona*, in which were to go Leonel de Castro and Dom Francisco da Cunha, as

we have said above [i. 609], who remained in the armada of the viceroy. The viceroy gave great dispatch to these four ships with the object that these should load first, and that if there were not enough cargo for all, that then those should remain that came this year, which could not load; and he gave the captaincy of these two ships, one to Vasco Gomes d'Abreu, who wished to return to the kingdom, because of being out of favour with the viceroy, and the other he gave to Francisco da Silva." All which is terribly incorrect, as may be seen from what I have related above.

²² There seems to be a certain amount of truth in what Correa says here. That the viceroy did send to Portugal, to recount to the king the "discovery" of Ceylon, some of the men who had taken part in it, we know from his own statement (see C5). And that Dom Francisco was unwilling to write of his own doings we also know from the same letter, in which he writes to the king (Cor. i. 910): "Since your highness commands that of the things that I do I be the writer, a thing that to me always seemed ill in men of honour, I must do it, with the protestation that the error that may be in this is not through my fault." That he wrote to the king announcing his son's "discovery" of Ceylon is clear from the summary of his letter quoted in B2; but how much he said on that subject we shall never know. The details given in the king's letter to the pope (B3) and copied by Cast. (B8) were probably furnished by the persons sent home by the viceroy.

²³ Cast. (B8) does not say that this was the *first* elephant ever sent to Portugal. Correa's statement may or may not be true.

B 11.

*The Discoveries of the World, by Antonio Galvão,*¹ 104.

[1505 or 1506.]

At the end of this year [1505], or at the beginning of the next,² the viceroy sent his son Dom Lourenço to the islands of Maldiva, and through contrary weather he made landfall at the islands [*sic*] which the ancients called Tragana³ and the Moors Itterubenero,⁴ and we now call Ceilam, where he went ashore, and concluded peace with those of the country, and returned to Cochin along the coast, making himself acquainted with the whole of it.⁵

¹ Antonio Galvão, the so-called "apostle of the Moluccas," went to the East in 1527 and spent many years there. His book was first published in 1563, and a very faulty English translation was printed by Hakluyt in 1601. This and the original text were reprinted by the Hakluyt Society in 1862 (shockingly edited, and without an index).

² This is noteworthy, showing that at the time when Galvão wrote doubt existed as to the exact date of Dom Lourenço's visit.

³ This name, which is found in Schott's map of Ptolemy, 1513, may represent the first part of "Trincomalee" (*cf.* A 10, note ³).

⁴ The *b* in this name should probably be *l*; and the whole seems to represent Tamil *tiru Ila-nāḍu*, "the sacred country of Ceylon" (*cf.* C 22, note ³).

⁵ I do not know what authority the writer has for this last statement (*cf.* B 9).

B 12.

*Couto V. I. v.*¹

[1505 ?]

In the time of this king Boenegabo Pandar,² Dom Lourenço d'Almeida, son of the viceroy Dom Francisco d'Almeida, in the year of Our Lord 1505,³ made landfall at this island, and sending on shore to get water and wood, they tried to prevent him; wherefore he ordered to be fired from the galleons several bombard-shots, with which he so astonished them, that they betook themselves into the interior, these natives not being accustomed to hear that new noise amongst them,⁴ because at that time there was not a single matchlock in the whole island⁵ ;

.....

And, to return to our subject, as soon as this king knew of the Portuguese armada that was in his port, his fear was so great that he sent to propose peace with Dom Lourenço, and to offer vassalage, which was accepted of him, with a yearly tribute of four hundred *bares* of cinnamon, which is equal to twelve hundred *quintals*.⁶

¹ In this chapter Couto gives a sketch of the history of Ceylon, with a summary account of the reigns of the kings from 1400 to 1537, the details of which, he says, he got from manuscripts that he found in the possession of Sinhalese princes at Goa. The chapter is interesting, as containing the earliest printed account of Ceylon history; but there are many errors.

² The details given by Couto in the paragraph preceding this show that Vijaya Báhu is meant.

³ It is curious that Couto antedates by a year both the first landing of the Portuguese in Ceylon and the erection by them of the first fortress at Columbo (see *infra*. C 20).

⁴ Cf. the (alleged) report of the natives to the king as recorded in the *Rájávaliya* (*infra*. B 15).

⁵ Cf. Varthema's statement in the extract given above (A 18).

⁶ See B 1, note ⁵.

B 13.

Specimens of Sinhalese Proverbs, by L. de Zoysa, Mudaliyár.

(Journal of the Ceylon Asiatic Society, 1870-71, 139.)

[1506 ?]

පරිච්ඡා කෙරිණිට්ටි යිකා වලෙ, "Like the Portuguese going to Kótté." Applied to a long and circuitous path. It is said that shortly after the Portuguese had landed at Colombo they were conducted to Kótté, then the capital of the kings of Ceylon, by a long and circuitous road, through Pánaduré and Rayigam

Kóralé, with a view to conceal from the new-comers the close proximity of the capital from the sea-port of Colombo, which was then the head-quarters of the Portuguese.¹

¹ This last clause should, I think, be deleted; for I feel convinced that the proverb had its rise in the manner in which the envoys of D. Lourenço de Almeida were conducted to the royal court, as described by Barros (see *supra*, B 9).

B 14.

Valentyn's "Ceylon" 75.¹

[1530 ?] [1506.]

About this time, in the lifetime of this emperor² of Cotta, there set out a ship from Portugal³ which arrived safely in the bay of Colombo: and this was the second that came here,⁴ about the year 1530.⁵

As soon as the emperor Darma Praccaram Bahu heard thereof, he ordered (so this history says) the 4 kings, his brothers,⁶ to be summoned to him, and took counsel with them as to whether these strangers should be allowed to enter that country, whereupon the king of Oedoegampala⁷ said that he would like first to go and see these people himself. This he did, thought very well of them,⁸ and advised the emperor to make a treaty with them. Thereupon the Portuguese went with presents to Cotta, where they were very well received by that prince, who made a treaty with them to their entire satisfaction, after which they departed from there.⁹

¹ Valentyn seems to have obtained possession of a Portuguese translation of the *Rājāvalīya* differing in many details from the versions now extant in Ceylon. His chronology, however, is, from various causes, very erroneous, as he himself recognized, though he was unable to rectify it.

² "Darma Praccaram Bahu" (Dharma Parākrama Báhu).

³ The version below (B 15) gives the place of departure more exactly.

⁴ These words are an evident interpolation of Valentyn's: see note⁹ below.

⁵ See *infra*, B 15, note².

⁶ On a previous page Valentyn tells us that these were: Taniam Vallaba, king of Candoepiti Madampe; Siri Raja Singa, king of Manicaravare; the king of Reygamme (unnamed); and Saccalacala Valaba Raja, king of Oedoegampala (*cf.* Bell's *Rep. on Kég. Dist.* 5).

⁷ According to the version below (B 15) it was "prince Chakra-uddha" who made the offer.

⁸ I rather suspect Valentyn's rendering or his Portuguese version of the original statement here (*cf.* B 15 below).

⁹ To this Valentyn appends the remark: "So the Cingaleeze relate of this emperor, but, as we record below in connection with the arrival of the Portuguese, it took place in the time of the preceding

emperor." The reference is to p. 91, where Valentyn gives the Portuguese version of the visit of D. Lourenço de Almeida, and adds that the emperor then reigning was, according to his list, "Ruceuley Praccaram Bahu Raja" (Irukula Parákrama Báhu Rája), in whose 52nd year, he says, on p. 74, the event took place. As a matter of fact, Śrī Parákrama Báhu, the sovereign he names, had been dead half a century when the Portuguese "discovered" Ceylon.

B 15.

Rájávaliya 73.¹

[1522 ?] [1506.]

At that time, in the year 1522 of our Lord Jesus Christ,² there came a ship to the harbour of Colombo from the Portuguese settlement in Jambudvīpa,³ having, by the power of God, escaped the perils of the deep. The men who saw it while lying in the harbour came and thus reported⁴ to king Parákrama Báhu: "There is in our harbour of Colombo a race of people fair of skin and comely withal. They don jackets of iron and hats of iron; they rest not a minute in one place; they walk here and there;" and with reference to their use of bread, raisins, and arrack,⁵ the informants said, "They eat hunks of stone and drink blood; they give two or three pieces of gold and silver for one fish or one lime; the report of their cannon is louder than thunder when it bursts upon the rock Yugandhara. Their cannon balls fly many a *gawwa* and shatter fortresses of granite." These and other countless details were brought to the hearing of the king.

On learning this news, the king Dharma Parákrama Báhu summoned his four brothers⁶ to the city, and having informed them and other leading persons and wise ministers, inquired, "Shall we live on friendly terms with them, or shall we fight?" Thereupon prince Chakrayuddha⁷ said: "I will myself go, and after seeing with my own eyes what manner of men they be, advise one of the two courses." Having so said, he disguised himself and went to Colombo harbour, watched the actions of the Portuguese, and having formed his opinion, returned to the city and addressed the king: "To fight with these men is useless; it will be well to give them audience." The king accordingly gave audience to one or two of the Portuguese, made them presents, and in return received presents and curiosities from them; and likewise, sending many tokens of respect to the great king of Portugal, lived on very friendly terms with him. Let it be noted, that from that day the Portuguese gained a footing in Colombo.

¹ This passage is extracted from the translation by B. Guṇasékara (1900). Though the date of its composition and its authorship are unknown, it was probably written in the seventeenth century. In spite of its erroneous chronology it is a work of much historical value, especially as regards the period of Portuguese occupation in Ceylon.

² According to Guṇasékara, some of the manuscripts give no date for this event. The mode of expression in a professedly Buddhist work, as well as the fact that the date is absurdly incorrect, would lead one to suspect a later interpolation. It is curious that in Valentyn's version an even later date, 1530, is given. I cannot explain how either date has been arrived at.

³ A curiously vague expression: the writer, apparently, did not know where the "Portuguese settlement" was.

⁴ It will be noticed that Valentyn's version gives nothing of this professed report, which certainly reads rather suspiciously, like the speeches that Correa invents for the occasion (see *supra*, B 10).

⁵ So Guṇasékara's translation reads: but I think the words *mud-dirappalam arakku* should be rendered "grape arrack," *i.e.*, wine.

⁶ The four were apparently Vijaya Báhu, Rayigam Bandára, Sakalakalá Valla of Udugampola, and Taniya Valla of Mádampé.

⁷ Valentyn's version (B 14) has "the king of Oedoegampala." It is probable that "Chakrayuddha" was a title borne by Sakalakalá Valla.

B 16.

*Yalpana-Vaipava-Malai*¹ 33, 48.

[1506.]

They [the *Parangkis*] first came to *Langka* in the year *Parithapi* corresponding with the *Saka* year 1428,² in the reign of king *Parak-kirama-vaku*³ of *Kotta*, and having obtained his permission they commenced to trade in his territories,

* * * * *

The *Parangkis* commenced to visit Ceylon in the reign of king *Parakkirama-vaku* of *Kotta*, who in the *Saka* year 1428 gave them permission to trade with his subjects.

¹ The extracts are taken from Brito's translation (1879). This history of Jaffna, though written only as late as 1736, is of some value as embodying early traditions.

² That is, 1506.

³ *Parákrama Báhu*.

C 1.

Correa i. 718.

[September (?) 1507.]

..... The viceroy when he left [Cochin] for Cananor sent to Ceylão Diogo de Crasto and Pero Barba in two ships to get the tribute cinnamon.¹ And because the king of Ceylão had not got an exact copy of what he was to give each year, he gave an order to these captains that they were to take by weight the cinnamon that the king gave them of his own free will, and whatever was deficient, of the two thousand quintals that they had to bring, they should buy it of him² and pay for it with gold portuguezes, which they carried with them for that purpose, five *bares*, equal to twenty quintals,³ being given for a gold portuguez⁴; and he sent the king his letter, and a piece of crimson velvet, and a large jar full of *amfiao*,⁵ and rosewater, and other things of the prizes got in the ships from the strait.

¹ Cor. alone records this mission: his statements, therefore, I can neither confirm nor controvert.

² Cf. C 4.

³ Cf. B 1, note 6.

⁴ The gold portuguez was equal to four thousand reis, the real at that time being equal to about 2297d. (see Theal's *Beg. of S. A. History* 181).

⁵ That is, opium (see *Hobson-Jobson* s.v. "Opium").

C 2.

*Instructions given to Diogo Lopes de Sequeira.*¹

[13 February 1508.]

* * * * *

..... And hence from the said islands² if you should make them, or from the country of Ssam Lourenço if you cannot reach them, you shall take your course with the help of Our Lord direct to the point of the island of Çeillam³; and, when you shall take your course for Çeillam, you shall endeavour to take your course by the island of Camdaluz⁴ or by Maldiva⁵ which we shall be glad to have discovered, and we also believe that you will there find pilots for every part, having such care however in this voyage that you find yourself rather inside of the point of the said island of Çeillam than outside, because this we consider safer navigation; and noting down very exactly all the islands that you shall find and how far they are one from the other, and also how much it is from the first land that you shall leave in quest of Çeillam

to the first of the said island of Çeillam where you shall make landfall, and you shall also cause to be written down the altitudes of all the countries and islands to which you shall come.

* * * * *

Item : When you shall come to Çeillam,⁶ if it please God, you shall find out if any of our people are there or fortress or ships, for we believe that you will there find tidings of our people and fleets. And after you have found out all about this and have informed yourself very thoroughly of the affairs of this island of Çeillam, as you have above been ordered to do in the case of other countries that you may discover, you shall then leave there and take your course in quest of Mallaca, endeavouring to obtain pilots there in Ceyllam⁷ And if there in Quejllam⁸ you find the viceroy, and he shall require you for the defence of any fortress and of our people who may be in extreme need, and that by your help matters should be remedied, in that case you shall do only what he shall require of and command you in our name, and by this we command our said viceroy or captain-major of the territories of Jmdia⁹ that in no other matter do they occupy you or detain you, except in the above, because we think it well to send you thus to discover.

¹ These were first printed in *Annaes Maritimas e Coloniaes*, 3 ser. (1843), pte. não off. 479-92. They are also printed in *Alguns Documentos* 184-97, and in *Cartas de Aff. de Albuquerque* ii. 403-19. I translate from the text in the former, and note below any variations in the text of the latter.

² Any islands near Sam Lourenço (Madagascar) that he should hear of.

³ "Ceillam" in *Cartas*.

⁴ "Cand aluz" in *Cartas*. It is Kinaḷos in Maḷosmaḍulu Atol. In documents and maps of the 16th century "Camdicall" (see *supra*, B 2) and "Camdaluz" are associated as being two of the best known islands of the Maldivé archipelago.

⁵ "Maldiva" here means the island of Malé (see *supra*, B 2).

⁶ *Cartas* has "Collam."

⁷ "Ceillam" in *Cartas*.

⁸ "Quejllam" in *Cartas*.

⁹ "Imdia" in *Cartas*.

' 3.

Barros II. iii. i.

[September-October (?) 1508.]

. While thus giving final orders in the matters of this fleet against the Rooms¹ and the cargo of spicery for the ships that had to come that year to this kingdom, as cinnamon was wanting for them, he [the viceroy] sent Nuno Vaz Pereira² in the ship *Sancto Spirito*³ to the island of Ceilam to bring it, who had come from Sofala in the ships of the armada of Jorge de Mello, handing over the fortress to Vasco Gomez Dabreu, as mentioned

above.⁴ By which journey he got nothing, only there came with him Garcia de Sousa, who had been there since the expedition he made when he went to supply the ship of Ruy Soarez:⁵ and the cause of his not bringing cinnamon was that the king of the country was very ill,⁶ and the Moors had incited the heathen to hatred of us.⁷ And though Nuno Vaz might have done them harm, he bore an order from the viceroy that he should not levy war by reason of the peace that his son Dom Lourenço had agreed to, the witness of which was the *padram* that he left standing in the town⁸ of Columbo,⁹ which Nuno Vaz saw.¹⁰

¹ The "Rooms" are Turks (see *Hobson-Jobson* s.v.), and the fleet referred to was that intended to avenge the death of D. Lourenço de Almeida in his engagement with the Diu and Egyptian fleets off Chaul in January 1508.

² See *supra*, B 2, B 9.

³ See *supra*, B 2.

⁴ In liv. i. cap. ii. of this Decade.

⁵ As related a few pages before. In May 1508 the *commendador* Ruy Soares had arrived from Portugal off Cape Comorin with his ship in a very unseaworthy condition; and the viceroy on learning this sent Garcia de Sousa in a caravel with anchors, cables, &c., to safeguard the ship, which lay exposed to the full force of the south-west monsoon. By "there" I think Barros means only "in that part" (*i.e.*, in the south), for I cannot find that Garcia de Sousa went to Ceylon.

⁶ This statement is significant, in view of the fact that it was in this year that Dharma Parákrama Báhu began his reign (see Bell's *Rep. on Kégalla Dist.* 86).

⁷ Cf. *infra*, C 4.

⁸ Port. *lugar*, lit. "place." It was applied to an unfortified town or village, in contradistinction to *cidade*.

⁹ Cf. B 9, *supra*, where Barros states that Galle was the place where Dom Lourenço erected the *padrão*.

¹⁰ Cf. *infra*, C 5.

C 4.

Castanheda ii. 301.

[November 1508.]

..... And whilst the ships that had to go to Portugal were loading there arrived Nuno Vaz Pereyra in the ship *Santo Sprito*, who had been to the island of Ceilão to seek the tribute¹ which Dom Lourenço Dalmeida had agreed with the king of that island that he was to pay to the king of Portugal: and he found no tribute, nor was he able to make a purchase,² which the king was opposed to, through the instigation of some Moors of Calicut who were there.

¹ Cf. *supra*, C 3.

² Cf. *supra*, C 1.

C 5.

*Letter of D. Francisco de Almeida to King Manuel.*¹[? September–December² 1508.]

Those still able to put to sea³ are; and Nuno Vaz Pereira, whom I sent to Ceylão,⁴ and Diogo de Faria, who will return in October,⁵ if it please Our Lord, before the fleet leaves here.

* * * * * *

The seed-pearls and pearls that you command me to send you I cannot get, as they are in Ceylão and Caille, which are the sources of them:⁶ I should have to purchase them with my blood, and with my money, which I possess because you have given it to me.

* * * * * *

Regarding Ceylão I have already informed your highness through men that went there,⁷ and these who have now come from there⁸ found the country quiet,⁹ and the *padrão* standing as my son placed it.¹⁰ I have said to your highness that a fortress would be good there,¹¹ because all the vessels that come from the south, that is, from all parts of Malaca, Çamatra, Pedir, Bengala, Pegú, cannot reach the northern region without passing close to this island of Ceylão, but to navigate with certainty are obliged to come in sight of it, and half-a-dozen ships could stop this route to them; and the fortress could be made without danger on a point that overlooks the port, as at Cananor, in which is a well of excellent water. May it please God to direct us to do this to the increase of your service.¹²

¹ This important document, the original of which does not seem to be extant, was printed in 1858 in the *Annaes das Sciencias e Letras* ii. from an 18th century copy in the possession of the Academia Real das Sciencias de Lisboa. Fortunately, Gaspar Correa, when compiling his *Lendas*, embodied therein an early copy of the letter, which is printed in tom. i. pp. 897–923. It is from this that I translate the following passages.

² The letter bears internal evidence of having been written at various times; for near the beginning 20 November is mentioned as the date of its writing, while towards the end we find “Today, fifth of December” (see below, note ⁵). Some of Albuquerque’s letters also were written *de die in diem*.

³ The viceroy is informing the king of what ships had been broken up, and what were still serviceable.

⁴ See *supra*, C 3, C 4.

⁵ This shows that the viceroy must have begun writing the letter in September.

⁶ Cf. *infra*, C 18.

⁷ Cf. *supra*, B 10, note ²².

⁸ Nuno Vaz Pereira and Diogo de Faria. This paragraph must have been added in November (cf. *supra*, C 4).

⁹ The viceroy says nothing of the ill-success of the mission and the causes thereof, as chronicled by Barros and Castanheda (*supra*, C 3, C 4).

¹⁰ Cf. *supra*, C 3.

¹¹ See *supra*, B 2.

¹² Cf. *supra*, A 21.

C 6.

Correa ii. 42.

[December (?) 1509.]

And all having thus been done, and the ships having been repaired as much as was needed, having been dispatched by the king [of Pedir in Sumatra] in good peace, he [Diogo Lopes de Sequeira] set sail, and with fair weather made landfall at the island of Ceilão in the port of Columbo,¹ where he learnt that a short time previously there had left there the ships that took the cinnamon² for the cargo of the marshal,³ and that the viceroy had left for the kingdom,⁴ and Afonso d'Albuquerque governed, with whom he continued on bad terms, through taking the part of the viceroy in their disputes.⁵ Fearing that on this account Afonso d'Albuquerque would give him a bad dispatch and cause him various annoyances, in great haste he discharged the ship of Jeronymo Teixeira, which was a better sailer than his, and careened her and repaired her very thoroughly in every part that required it, and loaded her with all that he had brought, which was worth a great deal, and embarked in her and gave his ship to Jeronymo Teixeira, that he should go with the other ships to the governor, but he was unwilling to do so, and went with him to the kingdom;⁶ And the ships having been fitted out, he set sail with them from Ceylão, and came to Coullão, whence he set his course for Portugal

¹ Both Castanheda and Barros say that the first landfall made by Diogo Lopes after leaving Sumatra was at Travaneor, which they describe as a port near Cape Comorin. According to the *Com. of Af. Dalb* (ii. 74), however, the port was Caecoulão (Kāyankulam, a little to the north of Quilon); while *Correa*, it will be seen, states that from Ceylon Diogo Lopes went to Quilon, and thence to Portugal.

² I have no means of substantiating or controverting this statement. We have seen above (C 3 and C 4) that in the previous year no cinnamon was obtainable from Ceylon, and the case may have been the same this year, *Correa* being quite capable of inventing "facts" on occasion.

³ D. Fernando Coutinho, marshal of Portugal, who had been sent out by the king to compel D. Francisco de Almeida to hand over the chief authority to Afonso de Albuquerque, whom the viceroy had imprisoned. The marshal lost his life in the attack on Calicut in January 1510. Regarding the cargo of his ships see *Com. of Af. Dalb*. ii. 49, 53 (cf. C 7. note ², below).

⁴ He sailed from Cananor on 1 December 1509, and just three months later was killed by Hottentots in the Aguada de Saldanha (Table Bay).

⁵ See *Com. of Af. Dalb*. ii.

⁶ This is not borne out by the statements of other writers. In fact Castanheda ii. cap. vii. tells us that in February 1510 Albuquerque "having set sail from Cananor learnt at Mount Deli that Francisco de Sousa, Jeronimo Teixeira, Jorge da Cunha, and Luis Coutinho intended to desert him and go off, induced by Jeronimo Teixeira that they should all go with an armada beyond Ceylão, because there they would load prizes, as he knew from the time when he went to Malaca with Diogo Lopez de Sequeyra, and that from there without returning to India they should go to Portugal, as did Diogo Lopez."

C 7.

Summary of Letter of Affonso de Albuquerque to King Manuel.¹

[4 November 1510.]

* * * * *

Cochy, in his opinion, should be the principal staple and factory for the whole of India, on account of its being in the centre of everything and the port of shipment for all the factories, which you must needs have in India in order to obtain profit.

And that all the others should be assisted from there.

And that the loading of your ships must never be done except in Cochy, because the pepper supplies the loading of the ships ;² all the rest of the other goods is superfluity.³

* * * * *

It is very near to Bengalla, and has Ceilão very close at hand.

* * * * *

And the ships can go to Ceylão in August and September, and return in November and December, when, he says, our ships are loading.

And that with this port of shipment and arrangement your highness can have in Cochy all the riches of India.⁴

* * * * *

He gives in the last paragraph of this letter an estimate of the spicery that went out of India that year, and from what places, and by what means he ascertained this.⁵

¹ This summary of a letter that has disappeared is printed in *Cartas de Aff. de Alb.* i. 423-27.

² According to the *Com. of Af. Dalb.* ii. 49, in November 1509 D. Fernando Coutinho asked the king of Cananor "to command his officers to get ready fifteen thousand *quintals* of pepper which were required for loading the cargoes of the ships, for the viceroy had told him that he would load them all with pepper for them if he pleased." The king, however, was not able to satisfy the marshal's desire. How largely pepper bulked in the cargoes of the homeward-bound Portuguese ships in the early part of the 16th century may be judged from the figures given by Leonardo Ca' Masser (*op. cit. supra*, A 23). Towards the end of the century the spice still formed the most important item in the cargoes (see Linschoten, *Hak. Soc. ed.*, i. 41, ii. 220-25).

³ In original *sobernal*, to which the editor affixes a mark of interrogation. The word appears to be not Portuguese but Spanish. Capt. John Stevens in his *Span.-Eng. Dict.* (2nd ed.) has: "*Sobornál*, the overplus in measure; also what is laid on a beast over and above its due burden; *Quasi sobre al*, above the rest."

⁴ D. Francisco de Almeida, in writing to the king two years earlier, had said (*Cor.* i. 906): "Any other place of loading apart from here is unnecessary, because in Cochym there is pepper so that never will there come ships from Portugal that will finish carrying it away, and the other spiceries and rich drugs would come to this coast and here to Cochym, but they dare not through the inducement of the Moors who put them in fear."

⁵ It is tantalizing to have this fact mentioned by the summarist, and not to have the estimate itself.

C 8.

Commentaries of Afonso Dalboquerque iii. cap. xxx.¹

[January (?) 1512.]

..... And the ship *Trindade* making her way direct to Ceilam, in that crossing, as there were many people on board,² they would all have perished for want of water and food if Our Lord had not succoured them by means of two large Moorish ships that they encountered on the voyage, bound from Çamatora and laden with pepper and silk, sandalwood, and lignaloës. As soon as Afonso Dalboquerque caught sight of them he gave orders to bear down on them, and took them, and out of them he furnished himself with provisions and water, which carried them to Ceilam³

¹ I translate from the first edition (1557). In the second edition (1576) there are slight alterations in this passage, but the sense is the same.

² For the foregoing words "And board," the 1576 ed. substitutes "In that crossing over to Ceilão."

³ None of the other authorities states that after the foundering of the *Flor de la mar* Affonso de Albuquerque, on leaving Sumatra for India, called at Ceylon. Giovanni da Empoli (who accompanied Albuquerque), Castanheda, Barros, and Correa, all say that Albuquerque made his first landfall at Cochin; and as the son, in these *Commentaries*, does not state that his father actually landed in Ceylon, I imagine the above to mean simply that the island was sighted and doubled.

C 9.

*Letter of Afonso de Albuquerque to King Manuel.*¹

[September (?) 1512.]

..... through this same weather³ there was driven to land a ship of Adem, which had loaded cinnamon in Çeilam, and put in to Batecalla⁴ and there discharged; I think that I shall have all, and that it will not get past by any means.

* * * * *

..... but, sire, when it is winter here, it is summer on the coast of Choromandell,⁵ and if there are westerly winds there, they are along the coast, because the coast of Choromandell runs north and south, and the westerly winds of India are for the most part west-south-western, the which westerly winds come overland, and also the island of Çeilam and the [Maldivè] islands, all of which makes a shelter to the coast of Choromandell; the easterly winds of the coast are always fair winds, and at the time of the easterly winds northerly winds blow along the coast of Choromandell.

* * * * *

..... they⁶ asked me for a share of the prizes for their ships ; I replied that they were not making a just request, because they were prohibited by your instructions from making captures or prizes beyond Ceilam,⁷.....

¹ This very lengthy letter is printed in *Cartas de Aff. de Alb.* i. 29-65, and in *Alg. Doc.* 232-61.

² The date of the letter is given in words as "the first day of April" 1512 ; but internal evidence proves that this cannot possibly be right, for in one paragraph Albuquerque speaks of an event that happened "at the beginning of August," and in others refers to the arrival of ships from Portugal, which, according to Barros and Correa, reached Cochin in August or September. It is probable that, as in the case of the letter by Almeida extracted from above (C 5), the writing of this document extended over several months.

³ The paragraph speaks of a storm that occurred in the Indian Ocean while Albuquerque was absent in Malacca in 1511, whereby many native vessels laden with spices, &c., were lost or driven to land (see *Com. of Af. Dalb.* iii. 203).

⁴ See *supra*, p. 305, note §.

⁵ *Cf.* B 2.

⁶ The captains of the ships that Albuquerque took to Malacca in 1511.

⁷ *Cf. supra*, C 6, note ⁶.

C 10.

*Letter of Affonso de Albuquerque to King Manuel.*¹

[8 November 1512.]

Your highness need not fear Calcut, the business of which is already nil ; the gulf beyond Ceilam is what did you all harm and damage there,² because there went continuously every year to Meqa fifty ships laden with everything that can be mentioned from Malaca and those parts ; now, thanks to Our Lord, you have cut off that route from them.³

¹ Printed in *Cartas* i. 98-100.

² In the Red Sea.

³ Albuquerque means by the possession of Malacca, which he had captured the previous year.

C 11.

*Summary of a Letter from Buquer Acem.*¹

[? 1512.]

Another letter, from Buquer Acem, very rhetorical ;¹ and he alleges fourteen years' services ; and begs for another similar letter of commendation, and that your highness command it to be written for him after such a fashion that friends and enemies may say : "Buquer Alacem is a servant of the great king's and

the great king holds him for such." And he says that he, by his letters and words, opened up the way from Malabar, until he caused you to be obeyed from Cambaya and Coulam and Dabull and Ceilam.

¹ Printed in *Cartas* iii. 336-37. The writer is referred to in *Com. of Af. Dalb.* ii. 226 as "a Moor of Cananor, named Porcassem" (spelt "Pocaracem" at 241), which name the editor explains as "for *Abu'l-Casim*, softened into *Bul-Kasim*." This seems improbable: I think it likely that the man's name was *Abū Bakr 'Alī Hasan*. He figures in Albuquerque's time as an interpreter and go-between; and Bar. (II. vii. vi.) calls him and another Moor "great friends of ours." At the end of 1544 or beginning of 1545, when he was governor of Cananor, he was treacherously murdered by command of *Martim Affonso de Sousa*, governor of India (see *Couto V. x. viii.*, Cor. iv. 425-27, *D. Lopes's Hist. dos Port. no Malabar* 65, *Whiteway's Rise of Port. Power in India* 288-89).

² "De grande oratorya." The statement in the last sentence is a characteristic piece of bombast.

C 12.

*Letter from Antonio Real to King Manuel.*¹

[15 December 1512.]

* * * * *

Sire,—I have already on a former occasion written to your highness that you should always keep well-fitted ships on this coast, to wit: that they may go to the islands² and Ceilam, when it is the season, which will thereby be of much service and profit to you, since everything is near at hand to Cochim; for from the islands comes much coir, which is very necessary,³ and ambergris and silk cloths and other wares, and from Ceilão much cinnamon, rubies, sapphires, elephants, which is the chief trade there is here; and this is more necessary to you than the trash of Goa and Mallaca, and this brings profit, and the others, loss and death of men. And the cinnamon that goes there, the Moors bring hither what they want; and the good they sell where it seems good to them. On this account I advise you, sire, to send regularly to this fortress ships intended for this, so that the captain-major cannot take them to any other part, and that they may also engage in the Cambaya trade, which is much to your service, with your goods.

¹ This is printed in *Cartas* iii. 337-55. It is written from Cochim, where the writer was chief *alcaide*. He was an enemy of Albuquerque's, and makes various accusations against the latter in this letter.

² Maldives.

³ Cf. B 9.

C 13.

Correa ii. 364.

[September 1513.]

..... and there also came on to the parade ground¹ to be exhibited four-and-twenty elephants, which were in the city for working, some of which had been captured in Goa, and others came as prizes from ships that had been carrying them from Ceylão to sell in Cambaya as a great commodity

¹ In front of the palace of the Sabayo in Goa, where Albuquerque was lodging.

C 14.

*Oration of Camillo Portio to Pope Leo the Tenth.*¹

[October 1513.]

..... He [Affonso de Albuquerque] gained the kingdom of Ormuz, the kingdom of Goa, the kingdom and island of Ceilão.²

¹ This forms the bulk of cap. xxxix. of pt. iii. of the *Com. of Af. Dalb.*, ed. of 1576 (it is not in the ed. of 1557). For details regarding the orator and the occasion of the deliverance of the oration see the notes to the Hak. Soc. ed. of the *Com.* iii. 169-72.

² The orator credits Albuquerque with more than he deserved.

*C 15.

*Letter of Affonso de Albuquerque to King Manuel.*¹

[30 November 1513.]

..... the king of Ceilam is dead;² he had two sons,³ and there is a division between them over the succession to the throne; they told me that one of them sent to Cochim to ask them to give him help, and saying that if they wanted a fortress he would give them a site for it.⁴

¹ Printed in *Cartas* i. 135-39, and in *Alg. Doc.* 295-98.

² I cannot explain this statement, which can refer neither to Vijaya Báhu nor to Dharma Parákrama Báhu. Perhaps Śrī Rāja Sinha of Menikkaḍavara is meant (see *Rāj.* 74).

³ According to the *Rāj.* 74, Śrī Rāja Sinha and Vijaya Báhu had by their common wife three sons; according to Bell (*Kég. Rep.* 5, 15), four.

⁴ I can find no confirmation of this, none of the historians referring to it.

C 16.

*Letter of Affonso de Albuquerque to King Manuel.*¹

[30 November 1513.]

.....it seems to me, sire, that you ought not to have so much responsibility in India, but if anyone open his port to your trade and goods, you should not hesitate to receive him with security for your people and merchandize, and thus you would go on gaining credit and fame in the country, and India would go on becoming settled, at least from Cambaya to Ceilam, where your ships have to do their loading:

.....how will such persons as these² send ships with goods to Urmuz and others to Pegu, and others to Bengala, and others to Zeila, to Barbora and Zeila,³ and others to Malaca and Çamatara, and others to Tanaçarym, and others to Sarnao, and others to Ceylam, to bring all the various kinds of goods to your factories for the loading of your ships, since they have not chosen to put into operation two such little things as I have mentioned above ?.....

¹ Printed in *Cartas* i. 151-55.² The factors of Cochín, of whose negligence Albuquerque is complaining.³ This repetition of Zeila is probably a copyist's error.

C 17.

*Letter from Lourenço Moreno to King Manuel.*¹

[30 November 1513.]

* * * * *

Item—In the ships of the past year there went a good proportion of cinnamon, and there is now going likewise in these; and so I hope in God there will go every year; and, regarding this, let your highness be easy, as I have more fear of your sending word to me not to send so much than of being lacking, as your highness did regarding ginger, of which you ordered me not to send you, each year, more than two thousand quintals.

* * * * *

Cherme² Marcar and his brothers, and Mamale Marcar and his brothers, are leading merchants of Cochín, and chiefly Cherme³ Marcar, who is head of them; and these are the brokers for furnishing cargo to the ships, and they bring all the cinnamon from Ceylam and other merchandize and drugs, and also cloves and mace, before Malaca was made,—of which nothing now comes from there,—and they receive here many wrongs, which I cannot make good to them

¹ Printed in *Cartas* iii. 380-406. The writer, one of the officials at the Cochín factory, was, like Antonio Real (see C 12), an enemy of Albuquerque's.² Read "Cherine." These two merchants are frequently mentioned in the *Cartas* and in Barros, &c. (*cf. supra*, A 6).

C 18.

*Letter sent by Giovanni da Empoli to his father Lionardo regarding the Malacca Voyage.*¹

[August–September (?) 1514.]

We left Cuccin for the said voyage² with nineteen sail, and setting out in not very favourable weather, it being late, we tacked hither and thither, until we doubled the island of Zolore,³ where commences the gulf towards Malacca; which is three hundred and fifty leagues

. In the country of India called Melibar, the province that commences at Goa and extends as far as Cape Comedis,⁴ grow pepper and ginger; the prices of which you have already learnt. Passing beyond Cape Comedi, they are heathen; and between this and Gael⁵ is where the pearls are fished; and near there is the body of Saint Thomas the apostle. Passing forward between the land and the sea is the island of Zolan, where are produced the cinnamon, sapphires, and oriental rubies in great abundance: a most beautiful country, well populated and situated

¹ Printed in *Archivio Storico Italiano*, App. tom. iii. 35–84. The writer, a Florentine factor in the Portuguese service, went to India with Albuquerque in 1503 and made many voyages. He died in Canton in October 1517 (see my *Letters from Port. Captives* 12).

² To Malacca in 1511.

³ This name has greatly puzzled the editor of the letter in the *Archivio*, who appends a footnote making various suggestions as to its meaning. Undoubtedly Ceylon is intended, "Zolore" being, like "Zolan" in the next paragraph, probably an error for "Zelan."

⁴ Comorin.

⁵ Cael or Káyal (see *supra*, A 16, note ²).

C 19.

Correa ii. 393.

[September (?) 1514.]

. and he [Heytor Rodrigues] managed to get bases and falcons, and two *camellos*,¹ and powder and balls, from an old foist that came on shore there near the port [of Coulão], which, it was given out, was crossing over to Ceylão, and craftily went ashore and was wrecked, having left Cochym with orders to do this.²

¹ All the foregoing are varieties of cannon.

² So as to build and mount a fortress at Coulam (see B 2, note ²).

C 20.

*Letter of Andrea Corsali to Juliano de Medici.*¹

[6 January 1515.]

..... Near to Curumandel, anciently called Messoli, is another country called Paliacatti, also anciently known as Salaceni: where is found a great quantity of gems of every sort, which come partly from Pegu where are produced the rubies, and partly from an island that lies over against the Cape of Commeri which is called Seilon,² in the latitude on the south side of six degrees and on the north towards the Gangetic Gulf of eight degrees. Here is produced the greater quantity and more kinds of gems than in all the rest of India, such as perfect sapphires, rubies, spinels, balasses, topazes, jacinths, chrysolites, catseyes which are held in great estimation by the Moors, and garnets. They say that the king of this island has two rubies of such a colour and so lustrous that they are like a flame of fire, and though they call them by another name, I reckon them to be carbuncles³; and this sort are rarely found. Here also is gathered the cinnamon, which is carried by ship to every part. It has a great quantity of elephants, which are sold to divers merchants of India when they are small in order to be domesticated; and they are accustomed to sell them at so much the span, the price increasing with every span according to the size of the elephant. This island was not located by Ptolemy, whom I find deficient in many particulars..... He placed Traprobana wrongly, as can be judged by Y. H. from the sailing chart that Don Michele⁴ the king's orator⁵ brought to Rome. In India at present there are four thousand Portuguese men, and within a month nine thousand are leaving Ormuz first for the strait of the Red Sea,⁶ in order that the ships may not be able to go to Murca⁷; then they are going south to the islands that are twelve thousand in number⁸ to capture all the ships that sail without a pass; and then to the island of Sala⁹ and to Curummandel.¹⁰

¹ This letter was written from "Concain terra de India," the writer (a Florentine) being there in the Portuguese service; and was printed in Florence in 1516. Ramusio reprinted it, with numerous alterations, in the first volume of his *Navigazioni* (1550).

² "Zeilan" in Ram.

³ Cf. Castanheda's statement in note ³¹ to C 22. The earliest editions of Spilbergen's voyage contain a plate showing (natural size) "the great carbuncle or ruby brought by the General Spilbergen from Celon" (in 1602),—a gift from the king of Kandy, apparently. It was probably a spinel ruby.

⁴ Ram. inserts "di Selva."

⁵ That is, ambassador (see B 6, note ³). Dom Miguel da Silva went to Rome as ambassador for Portugal in August 1514, and continued to hold that office until July 1525, when he returned to Portugal, the king conferring upon him the bishopric of Vizeu (see *Corpo Diplomatico Portuguez* i. 267, ii. 242-46, 264). The "sailing chart" referred to by Corsali may be the tracing sent by Albuquerque to King Manuel, taken from a large Javanese chart which was lost in the *Flor de la mar* (see *Cartas* i. 64, *Port. Capt. in Canton* 3 n.).

⁶ This refers to Albuquerque's projected expedition, which was frustrated by his illness and death (see *Com. of Af. Dalb.* iv. 130 *et seq.*).

⁷ Ram. corrects to "Mecca." Cf. Albuquerque's statement in C 10.

⁸ The Maldives (see A 21, note ⁵).

⁹ Ram. has "Zeila," but evidently Ceylon is meant.

¹⁰ This statement is interesting, but I cannot substantiate the truth of it. In his expedition to Malacca in 1511 Albuquerque did not touch at Ceylon, nor on his disastrous voyage back in 1512 does he appear to have landed on the island (see C 8, note ³). If, therefore, Corsali is correct in his statement of Albuquerque's intentions, the Fates had ordained that he should never set foot in Ceylon.

C 21.

Couto IV. vi. vii.

[1515.]

..... From there [Ormuz] we¹ went to India; and the king² (whom God keep), being cognizant of my good services, sent me the offer of Ormuz or Ceilão, whichever I chose, which did not take effect on account of my being in the kingdom, because I left there in the year that Lopo Soarez went to India³

¹ The speaker is Lopo Vaz de Sampaio, governor of India 1526-9, who, having been sent home a prisoner, after an incarceration of two years was brought before King João II. to make his defence and have sentence passed upon him (see *Rise of Port. Power in India* 211). The passage here quoted is from his lengthy speech in his defence: he is speaking of the time when he accompanied Albuquerque on his last expedition in 1515.

² Dom Manuel (died 1521).

³ That is, in 1515. He must therefore have left India in one of the homeward-bound ships at the end of that year, though the fact is mentioned by none of the historians. The king's offer to him of the captaincy of Ormuz or Ceylon must have been sent by the fleet of 1516, and so crossed him on the way. In both cases the offer was a prospective one: for the fortress at Ormuz was finished only at the end of 1515, and the one at Columbo was not built by Lopo Soares until the end of 1518 (see C 24, C 25, C 26).

C 22.

*Description of the Coast of East Africa and Malabar, by Duarte Barbosa.*¹

[1516 ?]

ISLAND OF CEYLAM.

Leaving the islands of Mahaldiva further on towards the east, where the cape of Comory is doubled, at thirty-eight leagues from the cape itself, there is a very large and beautiful island which the Moors, Arabs, Persians, and our people² call Ceylam, and the

Indians call it Ylinarim. It is a rich and luxuriant land,³ inhabited by Gentiles, and ruled by a Gentile king. Many Moors live in the sea-ports of this island in large quarters, and all the inhabitants are great merchants. There are fifty leagues of channel towards the north-east from the said cape until passing the island of Maylepur.⁴ Both Moors and Gentiles are well-made men, and almost white, and for the most part stout, with large stomachs, and luxurious.⁵ They do not understand nor possess arms, they are all given to trade and to good living. They go bare from the waist upwards, and below that cover themselves with good cloths of silk and cotton,⁶ caps on their heads, and the ears pierced with large holes in which they wear many gold rings and jewellery,⁷ so much that their very ears reach to their shoulders,⁸ and many rings and precious jewels on their fingers; they wear belts of gold richly adorned with precious stones. Their language is partly Malabar and partly of Cholmendel,⁹ and many Malabar Moors come to live in this island on account of its being so luxuriant, abundant, and very healthy. Men live longer here than in other parts of India.¹⁰ They have a great deal of very good fruit; and the mountains are full of sweet and sour oranges of three or four kinds, and plenty of lemons and citrons, and many other very good fruits which do not exist in our parts, and they last all the year.¹¹ And there is plenty of meat and fish,¹² little rice, for most of it comes from Cholmendel,¹³ and it is their chief food; much good honey and sugar brought from Bengal,¹⁴ and butter of the country. All the good cinnamon grows in this island upon the mountains, on trees which are like laurels. And the king of the country orders it to be cut in small sticks, and has the bark stripped off¹⁵ in certain months of the year, and sells it himself to the merchants who go there to buy it, because no one can gather it except the king.¹⁶ There are likewise in this island many wild elephants which the king orders to be caught and tamed; and they sell them to merchants of Cholmendel, Narsynga, and Malabar, and those of the kingdoms of Decan and Cambay go to those places to buy them. These elephants are caught in this manner They make great merchandize of them, and they are worth much, because they are much valued by the kings of India for¹⁷ war and for labour, and they became as domestic and quick at understanding as men. The very good ones are worth in the Malabar country and in Cholmendel from a thousand to one thousand five hundred ducats, and the others from four to six¹⁸ hundred ducats, according as they may be, but in the island they are to be had for a small price. And all have to be brought and presented to the king.¹⁹ There are also many jewels in this island, rubies which they call *manica*, sapphires, jacinths, topazes, jagonzas,²⁰ chrysolites, and cat's eyes, which are as much esteemed amongst the Indians as rubies. And all these stones are all gathered in by the king, and sold by himself. And he has men who go and dig for them in the mountains and shores of the rivers, who are great lapidaries and who are good judges in those matters: so much so that if they have

a few handfuls of earth brought them from the mountains, at once on seeing it they know if it is of rubies or of any other stones, and where it comes from. And the king sends them to look there, and after they have brought them he orders to be set aside each kind and pick out the good ones, and he has them worked to have them sold when cut, which he does himself to foreigners; and the other inferior ones he sells at once to the country merchants The king has a great treasure of these jewels, for whenever he meets with any very good stone he puts it in his treasury.²¹

Close to this island of Ceylam in the sea there is a sand-bank covered with ten or fifteen fathoms of water, in which a very great quantity of very fine seed pearls are found, small and great, and a few pearls:²² and the Moors and Gentiles go there from a city which is called Sael,²³ belonging to the king of Coulam, to fish for this seed pearl, twice a year by custom, and they find them in some small oysters, smoother than those of our ports. And the men plunging under the water, where they remain a considerable time, pick them up: and the seed pearl is for those who gather them, and the large pearls are for the king, who keeps his overseer there, and besides that they give him certain duties upon the seed pearl.²⁴

The King of Ceylan is always in a place called Columbo, which is a river with a very good port,²⁵ at which every year many ships touch from various parts to take on board cinnamon and elephants. And they bring gold and silver, cotton and silk stuffs from Cambay,²⁶ and many other goods which are saffron, coral, quicksilver, vermilion, which here is worth a great deal; and there is much profit on the gold and silver, because it is worth more than in other parts. And there comelike wise many ships from Bengal and Chholmendel, and some from Malaca for elephants, cinnamon, and precious stones. In this island of Ceylam there are four or five other harbours and places of trade which are governed by other lords, nephews of the king of Ceylam, to whom they pay obedience, except that sometimes they revolt²⁷ The said island of Ceylam is very near the mainland, and between it and the continent are some banks which have got a channel in the midst, which the Indians call Chylam,²⁸ by which all the Malabar sambuks pass to Chholmendel. And every year many are lost upon these banks because the channel is very narrow,²⁹ and in the year that the Admiral of Portugal went the second time to India,³⁰ so many ships and sambuks of Malabar were lost in those shallows, that twelve thousand Indians were drowned there, who were coming with provisions, and were determined on driving the Portuguese fleet away from India, without allowing it to take any cargo.

¹ This first appeared in print in the form of a defective Italian translation in vol. i. of Ramusio's *Navigazioni et Viaggi* (1550). The passages here given are taken from Stanley's translation of a Spanish version of Barbosa's work, issued by the Hakluyt Society in 1866. That the work was finished in 1516, as stated in the preface to the Lisbon edition, seems evident from the fact that it records no events of later date than 1515. This description of Ceylon is the earliest I

know of, written after the "discovery" of the island by the Portuguese. That given by Castanheda in lib. ii. cap. xxii. of his *Historia* is identical in most of the details, showing that he must have taken his account almost bodily from Barbosa's work.

² Ramusio has "of Syria" in place of "our people"—a curious error which I cannot explain.

³ After "Indians" Ram. has "Tenarisim, which means land of delights." (On this see *Hobson-Jobson* s.v. "Tenasserim.") The Lisbon edition has "the great island Ceilam, where our lord the king has a fortress for trade lately built, which Lopo Soares erected when governor of India." The words I have italicized are an evident interpolation of the copyist's, referring, as they do, to an event that took place in 1518. Castanheda, in copying from Barbosa, alters the passage as follows: "The Arabian and Persian Moors call it Ceillão, which in their language means a thing with a channel. This name they apply to it because of the channel that divides it from the coast of the main land. The Malabars and other Indians call it Hibenaro, which means luxuriant land." With regard to this explanation of "Ceillão" see note ²⁸ below. "Hibenaro" seems to be a misprint for "Hilenaro," which is the same as Barbosa's "Ylanarim"; and the meaning given to this name has been wrongly transferred from "Tenarisim." "Ylanarim" is by Barros spelt "Ilenare" and by Couto "Illanare," which, the latter writer says, "means in the Malabar language the kingdom of the island." In reality it seems to be the Tamil *Ila-nādu* ("country of Ceylon"), as surmised by Burnouf (*Recherches sur la Géographie ancienne de Ceylan* 109-12).

⁴ Stanley has the following footnote to this: "There is something wrong here; for, from Cape Comorin to Maylepur is more than double fifty leagues; the direction of the compass and length of the channel make it probable that the island of Manar was intended instead of Maylepur." (Besides, Maylepur was not an island, but a city, as Barbosa himself tells us further on.) But fifty leagues (say two hundred miles) in a north-easterly direction would bring us almost to Point Calimere. According to Barbosa's own statements (172-74), from Cape Comory to Quilacare was twenty leagues, thence to Cael ten leagues, thence to Cholmendar twelve leagues.

⁵ I do not know what the Spanish word is that Stanley translates thus; but the Lisbon version has "muy viçosos," which means "very vigorous." Castanheda substitutes "and they hold the belly in honour."

⁶ Castanheda inserts "which they call *patolas*" (see *Hobson-Jobson* s.v. "Patola").

⁷ Castanheda adds "and large *aljojar*," which is absurd, as *aljojar* means "seed-pearl."

⁸ Knox (*Hist. Rel.* 89) says of the Siphalese: "Heretofore generally they bored holes in their ears, and hung weights in them to make them grow long, like the Malabars, but this king [Rája Sinha] not boring him, that fashion is almost left off." The earliest editions of the journal of Spilbergen contain a portrait drawn from life of the then king of Kandy, Vimala Dharma Súrya, showing his ears loaded with rings and reaching to his shoulders.

⁹ Cast. has: "The language of the heathen is Canara and Malabar."

¹⁰ In Ram. this reads: "Many Malabar Moors come to reside in this island because of enjoying very great liberty, [and because] in addition to all the commodities and delights of the world, it is a country of very temperate climate, and men live there longer than in any other part of India, always healthy, and there are few that fall ill."

¹¹ Ram. has: "Here are produced many and excellent fruits, the mountains are covered with sweet and bitter oranges, of three or four kinds of flavour, and some have the peel sweeter than the juice and they are larger than Adam's apples; bitter-sweet lemons, some large and others small, and very sweet; and many other varieties of fruits which are not found in our parts; the trees are loaded with them all the year, and there are always to be seen flowers and fruits ripe and unripe." In Cast. this appears as: "There are also many sweet orange trees, and among them some that bear certain oranges, the peel of which is as sweet as the pulp; and there are also all the thorny trees [i.e., lemons, limes, citrons, &c.], and many others very different from ours which yield divers fruits, and the whole forest consists of these trees: in which moreover there are many sweet herbs, as also basil, pellitory, and others."

¹² In Ram. this is expanded to: "There is also a very great abundance of flesh of every kind, of divers animals and birds, all delicious, and an equal abundance of fish, which are caught near the island."

¹³ Cf. Varthema's statement in the extract *supra*, A 18.

¹⁴ There should be a comma after "honey": only the sugar came from Bengal.

¹⁵ Lisbon ed. adds "and dried."

¹⁶ For the foregoing Cast. substitutes: "a great part of which [forest] is of trees from which the cinnamon is got, which has a leaf like laurels, and the bark is the cinnamon that comes hither, which is obtained from the branches after they have been cut off and dried, and this is done by the common people, who sell it for a very small price."

¹⁷ Lisbon ed. inserts "state and for."

¹⁸ Lisbon ed. has "five."

¹⁹ In the Lisbon ed. this reads: "No one may catch them except the king," to which Ram. adds "who pays those that capture them." For the whole passage Cast. substitutes: "and after they are tame and understand, they are taken for sale to Malabar, Narsinga, and Cambaya, and to other parts where they are highly esteemed for war; and they sell them by the number of cubits, which they measure from the feet to the hips: and the cubit of those that are good and skilful in war is valued at a thousand gold *pardaos*, and of the others at six hundred and five hundred."

²⁰ Jargoons.

²¹ In place of this last sentence Cast. has: "and thus he has selected all, and formed thereof a great treasure, amongst which the king who was reigning at this time was said to have a ruby a span in length and of the size of an egg, quite clear without any flaw, and giving as much light as a candle." Regarding this ruby cf. Andrea Corsali's statement in the previous extract (C 20).

²² In Ram.: "where are found a very great quantity of pearls small and large, very fine, and some of them pear-shaped."

²³ A curious error for "Cael" originating in the wrong subscription of a cedilla, thus: Cael—Çael—Sael. On Cael or Káyal see *supra*, A 16, note ².

²⁴ Ram. has: "they pay him a certain tribute for the license to fish." Cast. in taking over the above makes some alterations and additions, as may be seen from the following quotation: "In the channel that runs between this island and the mainland, which is eight and ten fathoms in depth, is fished a great quantity of *aljojar*, large and small pearls, and twice a year the heathen people of Calecare [Kilakarai], which is a city that lies near here, come to carry on that fishery, at the time when the king throws open the fishery, and there

go thither from two hundred to three hundred *champanas*, which are certain small vessels, in which go twenty-five and thirty men with provision for the time that they stay there And the large pearls are for the king, who has someone there to receive them from them; and also his dues which they pay him. And the king of Ceilão loses this fishery through having no boats, for this wealth lies within the limits of his kingdom:

²⁵ In Ram. we read: "The king of Zeilam makes his residence continuously in a city that is called Colmucho, which is situated on a river, with a good port." Of course "Colmucho" is a misreading or misprint for "Columbo."

²⁶ Ram. has "very fine Cambaya cloths of cotton."

²⁷ The foregoing passage appears in Cast. in a materially altered form, thus: "Among the ports of this island there are seven that are the principal, and they are large cities, principally Columbo, which is on the southern coast, where the king of Ceilão always resides. Other five are also on the southern coast, viz., Panatore, Verauali, Licamaon, Gabaliquamma, and Toranair. And on the northern coast is another that is called Maningoubo. And in all these cities, which consist of thatched houses, there fall into the sea rivers some of which are very large and beautiful, which run through the island; and in them are alligators. At all these cities, principally at that of Columbo, many ships call to load with cinnamon, elephants, and precious stones, and bring gold, silver, Cambaya cloths, saffron, coral, and quicksilver. And these other cities besides that of Columbo are governed by certain rulers that call themselves kings; and so they exercise authority according to their custom: all however pay vassalage and obedience to the principal king who is in Columbo and recognize him as their seignior." The six "cities" named by Castanheda are Pánadure, Béruwala, Aḷutgama, Galle (+ Weligama?), Dondra, and Negombo.

²⁸ The Lisbon ed. has "which the Moors and Gentiles call Ceilam"—this last word having been evolved by a series of copyist's blunders from "Chilão," thus: Chilão—Chilão—Chilam—Ceilam. In the quotation from Castanheda in note³ above, it will be seen that writer attributes to "Ceilão" the meaning of "channel" in Arabic and Persian.

²⁹ In Cast. the foregoing passage assumes the following form:—"And is separated from the mainland by a hidden bank called Chilão [*sic*], in which there are many shoals between which is a very narrow channel; and through this passage pass all the ships that go from India to Choramandel, and from there to India; and many are often lost on those shoals on account of the channel's being so narrow that only with difficulty can it be found: and therefore one of the dangers that the Indian merchants pray to God to deliver them from is the shoals of Chilão."

³⁰ Vasco da Gama in 1502.

C 23.

Letter of Andrea Corsali to Laurentio de Medici.¹

[17 September 1517.*]

..... They fish [for pearls] at the bottom of the sea as in the island of Zelan c. leagues below Calicut where are also produced topazes, jacinths, rubies, sapphires, balasses, and some

carbuncle, *lesitione*³ (?), catseyes, and garnets and chrysolites which are there in the greatest abundance. Thence comes the good cinnamon, which is not found in other parts. This island of Zelan appears to me to be Traprobana, and not Samatora as many say, although last year I wrote to the contrary : having since then well considered the matter, I affirm that Samatora was not at that time discovered

¹ Like the preceding (C 20), this letter was written from India. It was printed at Florence (?) in 1518 (?), and was reprinted, with emendations, by Ramusio in the first volume of his *Navigazioni*.

² In the original the letter is dated "15 kal. Oct. MDXVII." For this Ram. substitutes "18 September 1517," which is a day out.

³ In original "*lesitiõe*," which Ram. slightly alters to "*lesicionẽ*." I cannot find any word in the least like this as the name of a precious stone; and the early French translation of Corsali's letters, in tom. ii. of *Historiale Description de l'Afrique* (1556), avoids the difficulty by omitting the word. The only other translation that I know of, of Corsali's letters, viz., the German, in *General Chroniken* (1576), renders the mysterious word by "*gelblichte Rubin*," that is, "*yellowish ruby*," by which perhaps the orange-coloured spinel is meant; and if the above list of precious stones is compared with that in Corsali's first letter it will be seen that the "*lesitione*" of the one corresponds with the "*spinette*" of the other.

C 24.

Barros III. II. ii.

[1518.]

King Dom Manuel, because he had much information regarding the fertility of this island, and learnt that from it came all the cinnamon of those parts, and that the lord of Galle, by the manner in which he acted towards D. Lourenço (as we have related above¹), desired to pay him tribute, in order to retain his friendship; and that afterwards, by means of Afonso Dalboquerque, the king of Columbo, who was the true lord of the cinnamon, wished to obtain this peace and amity,² wrote to the said Afonso Dalboquerque that he should go in person to this island, if he thought well, and should erect in this port of Columbo a fortress, in order by its means to secure the offerings of this king.³ However, as Afonso Dalboquerque, whilst he lived, considered other affairs of more importance to the state of India, and that they should first be made secure, rather than this island of Ceilam, and the more so as the king supplied us very well with all the cinnamon that we needed, he dissembled with the reminders which the king sent him each year regarding this matter, giving him these and other reasons why he neglected to carry it out.⁴ When Lopo Soarez came out to India he also carried this instruction⁵; and nevertheless he first proceeded to the strait of the Red Sea, which, for the reasons given by Afonso Dalboquerque, was of more importance; but seeing how little he had effected by this expedition,

on account of things having succeeded so badly, and that in that year of 1518 another captain-major and governor might arrive, he wished before his departure to leave this work completed at his hands

¹ See B 9.

² Cf. the extract from letter of Albuquerque *supra*, C 15.

³ Yule, in *Hobson-Jobson* s.v. "Colombo," has a faulty rendering of this passage.

⁴ Cf. the extracts from the summary of letter of Albuquerque *supra*, C 7.

⁵ The instructions given to Lopo Soares on his departure for India in 1515 do not appear to be extant: at any rate, they have not been printed.

C 25.

Barros III. ii. iii.

[? August 1518.]

. And that on the way he¹ was to pass by the island of Ceilan, and from the port of Columbo, whither our people were accustomed to go to seek cinnamon,² he was to take pilots to carry him to Bengalla; and also that he was secretly³ to inspect and take soundings in this port of Columbo, and the lie of the land, in order with his advice to come to a determination on what had to be done by command of the king, which was a fortress in that place,⁴ the captaincy of which was to be his (Dom Joam's). Who, having set out with the four ships with which he went to the islands of Maldiva, reached Columbo, and having taken note of the place and obtained pilots, took his way for Bengalla

¹ Don João da Silveira, nephew to the governor Lopo Soares, who in sending him to Bengal gave him these instructions.

² This statement is noteworthy.

³ Lopo Soares evidently knew that the king of Kótté was averse to the erection of a fortress at Columbo.

⁴ See C 24. If, however, we may judge from Dom Manuel's instructions in regard to other fortresses, the erection was to take place with the consent of the king of Kótté. That consent was given only under compulsion; and this was probably one of the reasons that led King João III. in 1524 to order its demolition.

C 26.

Couto V. i. v.

[1517] [1518].

. After the partition of these kingdoms had taken place,¹ there landed at this island the governor Lopo Soares in the year of Our Lord 1517,² and erected the fortress of Columbo, the vassalage being renewed with that king of Cota,³ with the

obligation of three hundred *bares* of cinnamon, and twelve ruby and sapphire rings, and six elephants for the service of the dock-yard at Cochim.⁴ This tribute was paid for some years until it ceased entirely, as we shall relate more fully in due course.

¹ The partition referred to is that between Bhuwaneka Báhu, Rayigam Baṇḍára, and Máýáduṇṇé, consequent on the death of Vijaya Báhu in 1534: it was not *after*, but sixteen years *before*, this that Lopo Soares landed in Ceylon.

² In reality 1518 (see C 24).

³ By "that king of Cota" is meant Bhuwaneka Báhu VII.; but Dharma Parákrama Báhu IX. was actually the reigning monarch.

⁴ As stated by Bar. (III. II. ii.).

Mr. HARWARD, at the conclusion of the Paper, read certain notes from the Appendices supporting the contentions of the writer of the Paper. The Paper, he said, had been in their hands for some time. They therefore thought it due to the author that the Paper, which was written in time for the year 1906, the quatercentenary anniversary, should not wait any longer. That was the reason why it had been read that evening.

The Hon. Mr. ARUNACHALAM said the Society was to be congratulated upon having such a learned friend as Mr. Donald Ferguson. He was sorry that he was not there in person to receive the warm thanks that all of them felt for the very interesting Paper which he had prepared with his usual great care and learning. Mr. Ferguson had collected a lot of useful information contained both in the Paper and in the Appendix. It appeared to the speaker that Mr. Ferguson had clearly established the fact that not Galle, as hitherto supposed, but Colombo was the first port at which the Portuguese called; but the speaker was not sure that Mr. Ferguson had established that 1506 was the first year in which the Portuguese came to Ceylon. It might have been the first official visit of the Portuguese; but it seemed to him strange that Mr. Ferguson made no reference whatever to the date upon the rock. Mr. Ferguson stated that the Portuguese erected at Colombo a monument. Referring to a photograph of the rock sculpture hanging on the wall, the speaker said he read on it, as also on a picture lying on the table, distinctly the date 1501. He could not understand why no reference had been made in the Paper to that carving.

Mr. HARWARD: There is a reference in the notes.

The Hon. Mr. ARUNACHALAM believed there were in the hall those who were more competent to deal with the subject than himself. He trusted they might throw some light upon the subject. A prolonged, interesting, and at times very lively discussion followed.

Mr. HARWARD, referring to the question of the date, said that the matter was fully discussed at a General Meeting which would be within the recollection of many of those present. Very great

doubt was attached to the carving on the stone on the Breakwater. It was, he thought, absolutely clear that the cross above the royal arms was by a different hand from the carving of the royal arms and date. Perhaps the date had nothing to do with the coat-of-arms which it adjoined, and might possibly have been the fancy work of somebody who carved on the rock perhaps long after the coat-of-arms was made.

Mr. C. M. FERNANDO thought the photograph was inaccurate, and that the tail of the "6" had been worn off. There was no historical mention of Ceylon having been visited by the Portuguese in 1501, and he agreed with Mr. Donald Ferguson in what he stated, that the first landing was in 1506, because it harmonized with what the historians stated. If Ceylon was discovered in 1501 six years would not have been taken to report the discovery to the king.

Mr. R. G. ANTHONISZ remarked that he had been disappointed with the former discussion which took place at a Meeting some eight years ago, at which he was present. He had more than once examined the inscription on the stone. He did not think that any one who saw the stone could imagine the characters to be other than 1501. The "5" was exactly one of those sixteenth century five's they were always coming across; and he thought that there was no "6" there at all. The cipher was perfectly clear, and there was no mark above the cipher to show that it could have at any time been a "6," part of which had since worn off.

Mr. FERNANDO pointed out that they were dealing with the "6."

The CHAIRMAN explained that the question was whether the date was 1501 or 1506.

Mr. ANTHONISZ said the last figure was clearly a "1" and nothing else. He thought that the discovery of a monument of that kind was one that suggested to them certain theories. As a piece of evidence it should not be summarily thrown aside. Mr. Donald Ferguson had fairly discussed the matter of Dom Lourenço de Almeida's arrival, and, he thought, established his contention that this took place in 1506. But he admits that Barros, Castanheda, and other historians contradict each other on certain points. Because no historian mentioned the year 1501, should they cast it aside? Monumental evidence, such as this, was very important. They had to follow historians from the date at which Vasco da Gama returned to Portugal in 1498 to that of Dom Francisco de Almeida's arrival in India in 1505. What he would like to ask was: Were they thoroughly satisfied that it was impossible for some Portuguese captive or adventurer to have found his way to Ceylon in 1501? That was the question he would like to put to any student of Portuguese history. It appeared that there were Portuguese visiting the west coast of India during this period, who came in contact with the Arabs. Pedro Alvares Cabral and his ships were at Calicut in August, 1500, and from there he proceeded to Cochin. From that time up to 1501 they were cruising about or residing at Cananor, Cochin, and Quilon. They had

many a conflict with the Arab traders. Was it beyond doubt that in these conflicts no Portuguese captives were taken by the Arabs and brought over to Ceylon? Another, in the person of João da Nova, left Portugal with a fleet in April, 1501, and in the same year he was in Cochin, and he returned to Portugal on September 11, 1502. He also had conflicts with the Arabs. It is not stated that any Portuguese captives were taken, but he thought there were possibilities that ought to bear some weight with them. In a recess under that monument some human bones had been found. He did not want to open up any romantic story about these; they may, however, take this for what it was worth. Was it altogether impossible that either one or more of the Portuguese captives had come out here? And might not one of these, in fulfilment of their Sovereign's order, have endeavoured, in the absence of a *padrão*, to cut on that boulder figures which the *padrão* was meant to represent? To say that the cross and figures were more rudely cut than the coat-of-arms ought, he thought, to carry no weight whatever. It is well known that after the care and labour taken in executing the chief part of a work of this kind, the easier portions are often hurried over with less care. Then about these bones. The man who cut that inscription may have been the man whose bones were discovered. He might have made friends with the people of the country and have begged of them to bury him under that stone in the expectation that some day his countrymen would come there to see the inscription and find the bones. He thought that a monument of that kind was very often of greater weight than history written by writers who have been found to contradict each other and to contradict themselves. It was not to be understood that what he said was meant to take away from the valuable Paper that had been read. It did not affect the Paper really, because it was a matter that was outside the Paper.

Mr. P. E. PIERIS, C.C.S., congratulated the Society on the Paper which had been read. It was rarely that a Paper prepared with such laborious research and such conscientious care was placed before a Meeting. They were to be congratulated that one with such abilities and such opportunities as Mr. Donald Ferguson was prepared to spend his time in the investigation of the more obscure points connected with the modern history of Ceylon.

Four points had been touched upon in the Paper. No one present would contest the position claimed for Ceylon in the matter of the supply of cinnamon; that was a claim gladly conceded by all.

The Portuguese historians give ample proof of the continuance of the intercourse between the native Singhalese and the European foreigners up to 1518. Few will venture to deny that the commemorative *padrão* was erected in Colombo; for otherwise it is impossible to explain the very explicit assertion of de Barros that Nuno Vaz Pereira saw it there in 1508. In all probability that *padrão* is the one on the rock at the foot of the Breakwater; that

clearly is what was referred to by de Queiroz in 1687 as the original. It is significant that the word used by him is *abrir*, which cannot possibly refer to an *erection*, but to an *engraving*. The *padrão* was *engraved* on a rock; that is why the Moors lit a fire to destroy it, instead of pulling it down; and that fire accounts for its present damaged condition. The date 1501 the speaker was not prepared to discuss. It is amusing as well as significant to note that the attempt now is to read it as 1506. That date was the subject of much correspondence; and till now the only variation on 1501 which had been suggested was 1561. This shows how easy it is to create evidence, given a theory which one is anxious to prove. Mr. Anthonisz has declared that he has frequently examined the stone, and that the date was never meant to be anything other than 1501. It would require a good deal to convince the speaker that Mr. Anthonisz was wrong.

When, however, Mr. Ferguson desires to establish 1506 as the date of the arrival of Almeida in Ceylon, displacing the long-established 1505, it is desirable to be critical in examining the evidence, and cautious in arriving at a conclusion. Such criticism cannot of course at this stage pretend to anything like exhaustiveness; indeed, the complete proof of the Paper had not reached the speaker till the previous night. But even the short examination to which the Paper had been subjected revealed certain points which should not be overlooked.

The evidence collected by Mr. Ferguson is both negative and positive in its nature, and the negative will be discussed first.

On September 13 Dom Francisco arrived at Anjadiva, near Goa. After erecting a fortress there, he left for Onor on October 16; this town he destroyed, and reaching Cananor on the 22nd he began a fortress there. He next proceeded to Cochin, which he reached on October 30, and from there he despatched Lourenço to Coulaç, not far from Travancore, with a punitive force which bombarded the place, probably on November 1.

It is accepted as definitely settled that the homeward bound fleet of eight vessels left Cananor in two divisions, on the 2nd and 21st January, 1506, respectively. It is also clear that the first of these ships left Cochin for the headquarters at Cananor about November 26, 1505. Castanheda states that it was in November that Lourenço started for the Maldives. On this the writer remarks: "Had Dom Francisco so acted, he would have been guilty of a breach of the king's instructions, according to which he was to send out expeditions of discovery *after* the dispatch of the cargo ships for Portugal." On examining the text of the instructions (A 19) the speaker is of opinion that it is unreasonable to attach so much weight to the word "*after*." The Commander of this important expedition had surely a moderate amount of discretion vested in him? He was at a friendly port close to Ceylon and on the most cordial terms with the raja, to whom he had just presented a crown of gold from his king. Cargo for his ships was being quickly provided. The weather was most favourable for sailing south, indeed so much so as to seriously interfere with ships sailing north. It

had been found possible to detach a flotilla for operations at Coulao; and that flotilla was victorious and unoccupied. What reason was there against its continuing its journey to Ceylon and the Maldives? It must be remembered that the king's instructions had also said: "We think well that not having need of all the vessels that are to remain with you, you send a pair of caravels to discover Ceylam." Granted such a favourable opportunity as would have been available at the beginning of November, it would rather appear strange if Francisco did not seize the chance to send out the ships he was in a position to spare on a voyage of discovery. It is difficult to see in such an act on his part any infringement of the spirit of his instructions.

In the footnote on page 297 it is urged as a further argument against the accepted date that had Lourenço started in November, 1505, it would have been mentioned in the viceroy's letter to the king written from Cochin on December 16, 1505. Unfortunately the text of this letter is not accessible, nor is there any information in the Paper as to the frequency with which the viceroy wrote to the king in November-December, 1505. It is the fact, as shown in the *Documentos Remettidos*, that several letters bearing the same date were frequently despatched by the king to the viceroy. Need it excite surprise if the viceroy waited for the result of an expedition, which would only occupy a few weeks, before communicating the matter to the king? Here the words of Correa (B 10) are significant: "The which he also gave to Diogo d'Almeida because he had to relate the deed of his son, which had happened in Ceylão; *which he did not wish to write of to the king.* it being a personal matter, and he considering it a breach of his honour if he should seem to glorify himself, and saying that a man of good breeding should not relate his own actions."

The writer himself does not appear to have a high opinion of the probative value of even a categorical assertion contained in the viceroy's letters, for in a note on page 312 he remarks: "I confess that this passage in the summary of the viceroy's letter puzzles me. The statements in it are not borne out by any of the historians it is strange that nowhere else is this fact mentioned *Perhaps the summarist has misinterpreted the viceroy's words.*" (The italics are mine.) If such is the value of a definite statement by the viceroy, the weight to be attached to a not unreasonable omission is *nil*.

Castanheda, who gives the date of Lourenço's expedition to Ceylon as November, 1505, continues that shortly after his return he was made captain-major of the sea and placed in charge of the Malabar Coast. The writer accepts the latter statement as correct, and he is prepared to receive the details given by this historian as more to be relied on than those of other writers referred to by him in his notes; and he thus succeeds in showing us how Lourenço was engaged throughout February and March. Castanheda further relates that Vasco Gomes de Abreu and another were despatched in February to Portugal, taking with them the cinnamon which had been brought from

Ceylon, as well as an elephant. On this the writer says: "That these two men sailed from India for Portugal in February is confirmed by *Barros*. and that they carried cinnamon and an elephant is possible; but these had absolutely no connection with any expedition to Ceylon, none having as yet taken place." I believe this kind of argument is styled by logicians *petitio principii*. When it is admitted that certain details contained in a statement made *bona fide* by an unprejudiced narrator are correct, we are not entitled to arbitrarily reject those other details which are not in consonance with any pre-conceived theories. Certainly the reasons given by the writer are far from convincing. He says: "Had Vasco Gomes de Abreu been the bearer of such important tidings as that Ceylon had been discovered, it is certain that King Manuel would not have waited some nine or ten months before informing the pope." This information was conveyed in a letter dated September 25, 1507. The exact date of de Abreu's arrival is not known. The writer conjectures that it was "at the end of 1506 or the beginning of 1507," and this latter date I am prepared to accept; but it appears to me to be suspending his argument on an excessively attenuated cord to depend on the date of the communication of the news to one who was merely in the position of a friendly potentate. The Paper does not show that it was the accepted custom to communicate similar news immediately it was received. The communication was purely an act of courtesy, and courtesy in Portugal was at the time the most ponderous and slow-moving in Europe. Indeed, it is manifest from the letter itself that it was *not* considered necessary to keep the Holy See in immediate touch with what was being done by the Portuguese adventurers; in fact, this was manifestly the first letter written with reference to the doings of Francisco de Almeida, who had started on March 25, 1505! "*Cui jam cognitum arbitramur misisse nos superioribus annis pro nobis viceregem*," &c. Clearly no formal intimation of the departure of de Almeida for the East had been sent to Rome till now. "We believe it is already known to you that some years back we dispatched as our viceroy," &c. The letter then continues to state that after several encounters with the enemy he sent "his son Dom Laurentius de Almeida with a flotilla to attack the sea coasts and the territories of our enemies, who also according to his instructions visited the far-famed island of Taprobana." If language means anything, this letter means that the attack on the enemies' coasts (clearly the bombardment of Coulão) and the visit to Ceylon formed one expedition. Is it possible that the authority relied on by the writer has destroyed his case? But without going so far as to say that, it is suggested that no argument should be deduced from the date of the letter to the pope.

The last objection brought forward by the writer is this: Payo de Sousa and Fernão Cotrim are mentioned as having been among the envoys sent by Lourenço to the king; but Payo de Sousa could not have reached Ceylon before May, 1506. nor Fernão Cotrim

till later still. But the very two pages in which he discusses this point (pp. 302 and 310) furnish abundant reason for not attaching too much weight to names; the confusion is hopeless, and it is most unsafe to build any argument on their identification. Nor can it be regarded as definitely settled who the envoys were. Indeed, even a careful writer like de Couto is not free from errors. There is one passage where he has mixed up the names of two of the kings of Ceylon; in another he has given to Diogo de Silva Modeliar the Christian name of *Pedro* in place of Diogo. The writer is himself fully aware of this danger. On page 300 he points out, of the historian Correa, that "he names as taking part in it (a sea fight) men who had already left India or had not yet arrived there."

So much for the negative evidence brought forward by the writer. He admits that the weather would have prevented any voyage of discovery from April to August, and he continues: "Dom Francisco de Almeida in August charged his son Dom Lourenço with this expedition. Accordingly, at the end of August or beginning of September, 1506, Dom Lourenço set sail with a number of vessels." At the same time he admits that such a proceeding at such a period of the year displays a strange ignorance of the navigation of the Indian Ocean. The speaker was not prepared to presume such ignorance, especially in view of the definite assertion of de Barros that the voyage was undertaken at a time when the monsoon was favourable for the journey, and the fact that in 1519 the Portuguese expedition started at the proper season, while it is also stated that Lourenço had good Indian pilots.

What positive evidence is there then in support of the new theory? On page 297 Mr. Ferguson says: "As a matter of fact it was neither at the end of 1505 nor at the beginning of 1506 that Dom Lourenço set out." On page 298, referring to the elephant and cinnamon taken by de Abreu, he says: "these had absolutely no connection with any expedition to Ceylon, none having as yet taken place," *i.e.*, by February, 1506. On page 299 he says: "However Dom Lourenço was employed until his appointment in January or February, 1506, as captain-major of the sea, we may be sure that he did not visit Ceylon." On page 306 we are informed as a matter of fact that he started at a very improbable time, the end of August or beginning of September, 1506. And on page 308 he triumphantly concludes: "we have seen that Castanheda is utterly wrong with regard to the date of the discovery of Ceylon." All these are assertions, and the actual evidence appears to consist of two points. The first is relegated to a note on page 308, which says that the expedition is referred to in a letter from the viceroy dated December 27, 1506, a summary of the letter itself being given in the Appendix B 2. It must, however, be remembered that despatches to Portugal could only be sent at one period of the year; there is nothing in any way surprising if a detailed report was sent in December, 1506, as supplementary to the information sent through de Abreu. The summary assigns no date to the expedition, and I can see very

little justification in it for settling upon the date now put forward by the writer, and, as will be indicated later, the king had information of the "discovery" long before this letter was written.

Next we have the letter quoted in B 1, on the authority of which the whole theory ultimately rests. This letter was written by Gaspar da India on November 16, 1506, to King Manuel, and in it the writer makes Lourenço de Almeida say "at the time I was about to leave for Ceilaom your son had left for Malaca, and my father was sending you to the port of Batecala." On the authority of the same writer the dates of these two events are fixed respectively as being August 22, 1506, and September 1, 1506. If these dates are correct, we are within reasonable distance of the correct date of Lourenço's expedition. But unfortunately on page 305 the writer of the article has definitely proved that the second date cannot be correct, and on page 313 he says of *Gaspar da India*, "In view of the disreputable character of the writer, we might be inclined to regard his statements regarding this expedition (one to *Ormuz* under Dom Lourenço) as fiction."

Surely it is most dangerous to base any theory on the boastful assertion of a writer of admitted unreliability? And it appears to be a fact worthy of the gravest comment that, though the letter is dated November 16, 1506, the passage quoted in the note reads "on the 16th of November Dom Lourenço called me to his room."

I have already commented on the inference which might be drawn from the king's letter to the pope; that letter contains certain minute details, regarding which the writers says: "I see no reason to doubt what Correa tells us, that Dom Francisco sent to Portugal a man who had accompanied the expedition to Ceylon." And he refers us to the Appendix B 10. In that passage Correa adds that the viceroy loaded the ships which were then starting, and in which this messenger sailed, with the cinnamon brought by his son, as well as a small elephant, *which was the first that ever went to Portugal*. Correa is clearly referring to the mission of de Abreu, which has already been discussed. If the writer accepts one portion of Correa's narrative, that regarding the messenger, as correct, I fail to see his justification for rejecting the accompanying portion, merely because it is absolutely incompatible with his theory.

The despatch of that messenger explains a good deal. It is undisputed that when the king gave his instructions of March 5, 1505, Ceilão was an unknown country. An expedition was to be sent to "discover" it; but the state of affairs is quite different when we turn to the letter A 21, which is assigned by the writer to the period March-April, 1506. It may be conceded that that letter was written about April, but I am of opinion that it was April, 1507, and not April, 1506, and for the following reason. Every line of this letter shows that the king was no longer ignorant about Ceylon; he knew of the position of the island, of its importance to India, its wealth and products, the desirability of establishing a fortress there; how it lay in the track of ships sailing to

particular countries, “lying in the track of all the ships of Malacca and Bymgalla, and none being able to pass without being seen and known of in that part; and being near to the archipelago of the xij islands.” He knew how far the fortress to be built would be from India, and that that fortress would be a convenient centre for the king’s representative in the East; “since it appears that from here you can better provide for and assist in all things than from any other part, on account of your being in the centre of all the fortresses and things that we have there.” Surely the man who wrote that had ample knowledge of Ceylon and was in no need of any further discovery! Clearly that information had been conveyed by the messenger sent with de Abreu; and when the viceroy’s letter of December 27, 1506, reached Portugal, the king’s letter (A 21) must have been in the Indian Ocean. This letter and that to the pope appear to me to have completely destroyed Mr. Ferguson’s theory, and vindicated the accuracy of Castanheda and Correa, sufficiently so, at any rate, to make them preferable guides to the “disreputable” and vainglorious Gaspar da India.

The writer frankly admits that according to his theory he cannot account for the manner in which Dom Lourenço de Almeida was engaged from the beginning of November, 1505, until his appointment in January or February, 1506, as captain-major. But the greatest Portuguese historian of Ceylon, de Queiróz, says he can. He relates that de Almeida landed first at Galle, and thence made his way to Colombo, where he arrived on November 15, 1505. The speaker could see no reason to doubt the correctness of de Queiróz’s statement.

Mr. E. W. PERERA said: It would be an interesting point to fix the Sovereign in whose reign the Portuguese first landed in Ceylon (see note on page 309 of the Paper). The current Sinhalese tradition is that it was Dharma Parákrama Báhu IX. It is significant that in a *sannasa* of that king the commencement of his reign is dated 1501.* The memory of the march of the Portuguese envoys by a long and circuitous route is preserved among the people, not only in the proverb noted by Mr. Ferguson on page 310, but by a fairly circumstantial account of the journey itself. The object of the Sinhalese was to conceal from the stranger the proximity of the capital to the bay of Colombo, and for “three months and three weeks” (*tun mas tun poya*) the envoys with their Sinhalese guides tramped by way of Negombo and across the country through Hanwella to Kótté, till the report of the guns in the harbour announced to the Portuguese in the city their nearness to the sea.

G. Legend tells that Dharma Parákrama Báhu IX. was warned in a dream of the advent of the Portuguese. The mystic jingle

* The translation of the Munessaram *sannasa* filed in P. C. case, Chilaw, No. 15,482 (decided in appeal on January 25, 1900), gives two dates of this king’s accession, 1501 and 1505, the former corresponding to the Saka era and the latter to the Buddhist era date in the grant.—E. W. P. [See footnote on page 399.—B., *Hon. Sec.*]

*Kótté kalále data mēda gan kisille** rang in the king's ears at night in his sleep, and the following morning, haunted by the words, he inquired their import from his sages and counsellors. The words properly broken up contained the injunction, "Enough your love for Kótté: remove the tooth-relic to the middle country quickly." A few days after, the announcement of the arrival of the Portuguese proved the accuracy of the prophecy!

Mr. F. LEWIS proposed a cordial vote of thanks to Mr. Donald Ferguson for his very able and interesting Paper.

Mr. T. P. ATTYGALLE seconded.

The PRESIDENT, after putting the vote, which was carried by acclamation, expressed surprise that Mr. Pieris and other Sinhalese gentlemen present did not give them any information from Sinhalese annals. It was astonishing that the question at issue could not be settled by a reference to Sinhalese chronicles as to when the strange white men from the West were first seen in Ceylon. He certainly thought it strange that the Portuguese should have been so close to Ceylon as Calicut, Cochin, and even Quilon from 1498 onwards, and yet never have broken through the Moorish fleets and got to Ceylon for eight years. It would be very interesting to hear what Mr. Donald Ferguson had to say on the full discussion when he was able to read it. (*See below.*)

Mr. ARUNACHALAM next proposed a vote of thanks to the President. In regard to the President's observation *re* the delay of eight years, at that time Arabs were the masters of the Eastern seas and the Portuguese perhaps were in fear of them. In regard to Sinhalese evidence, Mr. Donald Ferguson had quoted the *Rājāvaliya*. He had also quoted a Tamil chronicle.

The PRESIDENT said his point was that the Sinhalese gentlemen who had taken part in the discussion had not brought any Sinhalese evidence in support of what they said.

This concluded the Meeting.

REPLY TO THE DISCUSSION BY MR. DONALD FERGUSON.

Several of the speakers referred to the inscribed boulder discovered in 1898 near the Colombo Breakwater.

Mr. Arunachalam complained that in my Paper I had made no reference to the date on this rock. But that the four characters form a *date* is just what I want proved: I am extremely doubtful on the point. In any case, I cannot believe that the last character ever was a 6, as Mr. C. M. Fernando surmised.†

* කෝට්ටේ=කෝට්ටේට ; කලාල=කල අල (ඇත); දත=දන්තකාවු ; මැද=මදුම ප්‍රදේශට ; ගන්=ගහු ; කිසිල්ල=කිසි ගිහි.

† I am at a disadvantage in being unable to examine the rock *in situ*, and in having to depend on a photograph of only a portion of the boulder.—D. F.

Mr. Anthonisz's theory is very romantic, but has not a shred of evidence to support it.

I now come to Mr. P. E. Pieris's criticisms, for which I am grateful, as they afford me the opportunity of adducing further evidence in support of my "theory"—as he calls it, though I assure him I entered on the investigation with an open mind.

Mr. Pieris accepts three of my four contentions, and with regard to the third says: "Few will venture to deny that the commemorative *padrão* was erected in Colombo; In all probability that *padrão* is the one on the rock at the foot of the Breakwater; that clearly is what was referred to by de Queiróz in 1687 as the original. It is significant that the word used by him is *abrir*, which cannot possibly refer to an *erection*, but to an *engraving*. The *padrão* was *engraved* on a rock; that is why the Moors lit a fire to destroy it, instead of pulling it down; and that fire accounts for its present damaged condition." On which I would remark that I should have supposed Mr. Pieris to be aware of the fact that *padrão* means a *pillar*, and that all three of the great Portuguese historians of India agree in stating that a *pillar* was *erected*. (Regarding Queiróz I shall speak later.)

My fourth contention, that the "discovery" of Ceylon by Dom Lourenço de Almeida took place in September 1506, Mr. Pieris rejects, accepting instead Castanheda's statement that it occurred in November 1505. In support of this Mr. Pieris advances certain propositions, by which he seeks to damage my "case." In the first place he tries to show that D. Francisco would not have been guilty of a breach of the royal instructions in sending his son on a voyage of discovery *before* the cargo ships had been dispatched for Portugal, and to support this gives a garbled quotation from those instructions—which is hardly honest. Mr. Pieris also thinks that "The commander of this important expedition had surely a moderate amount of discretion vested in him?" Perhaps so; but not in regard to that part of the royal commands: the dispatch of the cargo ships was the business that had to be first attended to. That D. Lourenço was sent by his father at the end of October 1505 to avenge the massacre at Coulam is no argument in support of Mr. Pieris's theory. When he speaks of the possibility of D. Lourenço's avenging fleet "continuing its journey to Ceylon and the Maldives," he is throwing over even Castanheda, who distinctly states that D. Lourenço returned from Coulam to Cochin. Mr. Pieris seems to think that the viceroy could easily have sent out an exploring expedition at any time after his arrival in India. Such, however, was not the case, a large number of his men being sick, owing to the voyage, change of climate and food, &c. (see the letter of Gonçalo Fernandes in *Cartas* ii. 381–85).

The omission by the viceroy to mention in his letter of 16 December 1505 to the king the fact that he had sent his son to the Maldives and Ceylon, Mr. Pieris attempts to explain in several ways. He says (1) that D. Francisco may have mentioned it in another letter. He may (if D. Lourenço had really been sent ere then);

but no record of any such letter exists. Then he says (2) that the viceroy would probably wait until he learnt the result of the expedition, "which would only occupy a few weeks, before communicating the matter to the king." Very probably; but this contradicts the previous proposition; and as to the "few weeks," Castanheda, as I have stated in my Paper, implies that D. Lourenço did not return from Ceylon until the end of January or beginning of February 1506, which makes the expedition last certainly more than "a few weeks." Finally, Mr. Pieris would apparently have it, on the authority of Correa, that the viceroy did not write to the king at all regarding the expedition, but sent a messenger to report it by word of mouth: which hypothesis, again, destroys the one first advanced.

With regard to Mr. Pieris's next assertion, I have only to remark that to accuse me of casting doubt on a statement in a *letter* of the viceroy's, when in fact I suggested that the summarist of the letter (*which itself does not exist*) had perhaps misinterpreted the viceroy's words, is either gross carelessness or something worse. If we had the viceroy's letter itself, all our doubts as to the time of year when the "discovery" of Ceylon took place would probably be resolved.

Before I proceed to reply to Mr. Pieris's further criticisms, I would take this opportunity to adduce some fresh evidence in confutation of Castanheda's statements regarding D. Lourenço's expedition. That writer, as I have said, leads us to believe that it was early in November 1505 that D. Lourenço left for the Maldives and Ceylon, and that he did not return thence to Cochin before the end of January 1506. Now, from the letter of Gaspar Pereira to the king, referred to on page 295 of my Paper, we learn that on 26 December 1505 D. Lourenço returned to Cochin in the *Flor de la mar* from *Cananor*, whither the viceroy had sent him to load that ship for Portugal. When D. Lourenço left Cochin for Cananor we do not know; but it must have been previous to 18 December, with which day Gaspar Pereira's letter commences. (It is most unfortunate that his first letter to the king has perished.) Therefore, if the expedition to Ceylon had already taken place, D. Lourenço must have returned from that island in ample time for his father to report its "discovery" to the king by the ships that left for Portugal in January 1506. That he did not do so seems absolutely certain. Further, Castanheda states that from Coulam D. Lourenço returned to Cochin. On the other hand, Barros says that from Coulam D. Lourenço proceeded to Caecoulão (Káyan-kulam), where he left some ships to be loaded with pepper. This seems to be borne out by Gaspar Pereira, who says that on 31 December Nuno Vaz Pereira arrived in his galley at Cochin, and reported, among other things, that Gonçalo de Paiva and Antão Vaz were anchored off "Caycoulam." (On the same day there arrived at Cochin a ship laden with cinnamon, which spice was transferred to the *S. Gabriel* for transmission to Portugal; and the viceroy is said to have expected to get further supplies by native vessels. Not a word, however, is said of any cinnamon brought

from Ceylon by D. Lourenço.) Gaspar Pereira refers several times to D. Lourenço, and tells us that the viceroy promised the king of Cochin that his son should go with an armada to protect all native vessels except those of Calicut. We also read that the king of Cochin warned the viceroy and D. Lourenço that the Samuri was preparing a big fleet to attack the Portuguese. Taking Gaspar Pereira's letter with the statements of Castanheda and Barros, I think it is reasonable to suppose that it was immediately after his return from Coulam and Caycoulam that D. Lourenço was sent by his father to Cananor, the more so, as Gaspar Pereira says that on 31 December 1505 the king of Cochin saw D. Lourenço *for the first time*, which shows that he could not have made any long stay in Cochin previously. His prolonged stay at Cananor was due, doubtless, to the fact that a fortress was being erected at that place, not without opposition from the inhabitants, as we learn from Gaspar Pereira.

To return to Mr. Pieris's criticisms. He argues that if I accept any of Castanheda's statements as correct, I must accept the whole : this is strange, coming from one who avowedly rejects Castanheda's distinct assertion that Galle was the port where D. Lourenço erected the *padrão*.

Mr. Pieris says that to King Manuel the pope was "merely in the position of a friendly potentate"—an assertion contrary to the fact ; and that "it is manifest from the [king's] letter itself that it was *not* considered necessary to keep the Holy See in immediate touch with what was being done by the Portuguese adventurers"—which is really too feeble to deserve a reply. By altering the punctuation and mistranslating the words of King Manuel's letter to the pope, Mr. Pieris tries to bolster up his theory that "the bombardment of Coullão and the visit to Ceylon formed one expedition." Of the first event the king learnt in May 1506, on the arrival at Lisbon of the fleet of Fernão Soares, and he gave an account of it in his letter to Cardinal Alpedrinha (see my Paper, App., A 22) : if the expedition to Ceylon had taken place, why is there no mention of this important fact in that letter ? In his letter of 25 September 1507 to the pope King Manuel naturally does not repeat information which had been *printed* in Rome nearly a year before, but dismisses the Coulam affair and others with the words "*factis plurimis in hostes excursionibus*." The following words, "*proxime dominum Laurentium de Almeida filium armata classe misit ad infestanda hostium litora ac terras*," certainly refer to D. Lourenço's mission on coastguard duty and to nothing else. Then follows the statement regarding the expedition to Ceylon. I think it is not I but Mr. Pieris who has "destroyed his case."

Being unable to answer my arguments as to Payo de Sousa and Fernão Cotrim, Mr. Pieris tries to turn the tables on me by referring to what I have said as to confusion of names. Mr. Pieris had better settle the matter with Castanheda, and let me know the result.

Mr. Pieris says he "is not prepared to presume such ignorance of the navigation of the Indian Ocean" on the part of the viceroy as is shown in his dispatching his son on an expedition to the Maldivé islands and Ceylon at one and the same time. That Barros was mistaken on this point is likely, the expedition being probably intended for the Maldives only; but that the dispatch took place at the wrong time of year for reaching those islands is evident, since the ships were carried by the currents to Ceylon. As to the "good Indian pilots," it is only Correa that applies the adjective to them, which seems hardly justified under the circumstances.

Mr. Pieris next proceeds to demonstrate (or thinks he does so) that the whole of the actual evidence for my "theory" consists in the statements in the summary of the viceroy's letter of 27 December 1506, and that of Gaspar da India of 16 November 1506. With regard to the former he says:—"It must, however, be remembered that despatches to Portugal could only be sent at one period of the year; there is nothing in any way surprising if a detailed report was sent in December, 1506, as supplementary to the information sent through de Abreu." On which I would remark that the first statement is not correct, and that the second is mere "theory."

Not being able to controvert the statement of Gaspar da Gama, Mr. Pieris delightedly seizes hold of my description of the man as having a "disreputable character," and adds: "Surely it is most dangerous to base any theory on the boastful assertion of a writer of admitted unreliability?" Apparently Mr. Pieris wishes it to be thought that I had admitted the unreliability of the bigamous "Christian" Jew; for in the previous paragraph he has, characteristically, garbled my words by omitting the end of the sentence. I do not admit the unreliability of Gaspar da Gama's statements of *facts* such as the one in question. What earthly purpose could it serve for him to invent such a statement in a letter to the king?

The height of absurdity is reached when Mr. Pieris solemnly continues:—"And it appears to be a fact worthy of the gravest comment that, though the letter is dated November 16, 1506, the passage quoted in the note reads 'on the 16th of November Dom Lourenço called me to his room.'" The explanation is very simple. The letter, like many contemporary ones, was written in instalments at various times; and when the writer penned the above sentence he did not know that he would have to bring his epistle to a hurried close the same evening. So Mr. Pieris has made a mountain out of a molehill.

In the same way Mr. Pieris makes much of the apparent discrepancy between the statement of Gaspar da Gama and the date of the viceroy's license to Gaspar Pereira. It is "much ado about nothing," since the viceroy's order might well have been given on September 1, and yet not carried out until some days later. (Gaspar da Gama's words are capable of that construction.)

Once more Mr. Pieris falls foul of me because I say that "I see no reason to doubt what Correa tells us, that Dom Francisco sent

to Portugal a man who had accompanied the expedition to Ceylon," while at the same time I reject other statements of the same writer's. If it is a crime to sift evidence, accept what is borne out by other testimony, and reject that which is palpably absurd or incapable of proof, I plead guilty to being a criminal.

Mr. Pieris goes on to make the astounding assertion that "It is undisputed [!] that when the king gave his instructions of March 5, 1505, Ceilão [*sic*] was an unknown country. An expedition was to be sent to 'discover' it;" and, starting with this "theory," he proceeds to show to his own satisfaction that King Manuel's letter quoted by me in App. A 21 was written in 1507, and not in 1506, building on this hypothesis a very pretty house of cards, which at once falls to pieces when I tell him that the first part of the letter treats of the duties assigned to Tristão da Cunha, "*now setting out, . . . and Affonso d'Albuquerque who goes with him.*" So that Mr. Pieris's "opinion" as to the date of the letter is worthless, and it is he that has destroyed his own theory.

The last paragraph of Mr. Pieris's lengthy criticism runs as follows:—"The writer frankly admits that according to his theory he cannot account for the manner in which Dom Lourenço de Almeida was engaged from the beginning of November, 1505, until his appointment in January or February, 1506, as captain-major. But the greatest Portuguese historian of Ceylon, de Queiróz, says he can. He relates that de Almeida landed first at Galle, and thence made his way to Colombo, where he arrived on November 15, 1505. The speaker could see no reason to doubt the correctness of de Queiróz's statement." Evidently this was the trump card that Mr. Pieris had up his sleeve the whole time, with which to confound me in the end. Well, I will at once confess that he has the advantage of me, since, except for the last portion, which was printed by Mr. F. H. de Vos some years ago, the work of Fernão de Queiróz, "the greatest Portuguese historian of Ceylon" [!!!], remains in manuscript, and is inaccessible to me. Why does not Mr. Pieris give this writer's statement in his own words, so that we may judge what value is to be attached to them? Whence did Queiróz, who wrote so late as 1687, obtain his facts?

In the opening paragraph of his criticism Mr. Pieris referred to another statement by Queiróz, of which, in like manner, he failed to give the *ipsissima verba*. In the Ceylon As. Soc. Jl. for 1899, on page 23, is printed what purports to be an extract from the work of Queiróz, which is absolutely unintelligible. Why does not Mr. Pieris print this work in full, with a translation?

Mr. E. W. Perera refers to a *sannasa* that gives the initial date of the reign of Parākrama Báhu IX. as 1501 Saka. Is this *sannasa* genuine? * The traditions he quotes in connection with the

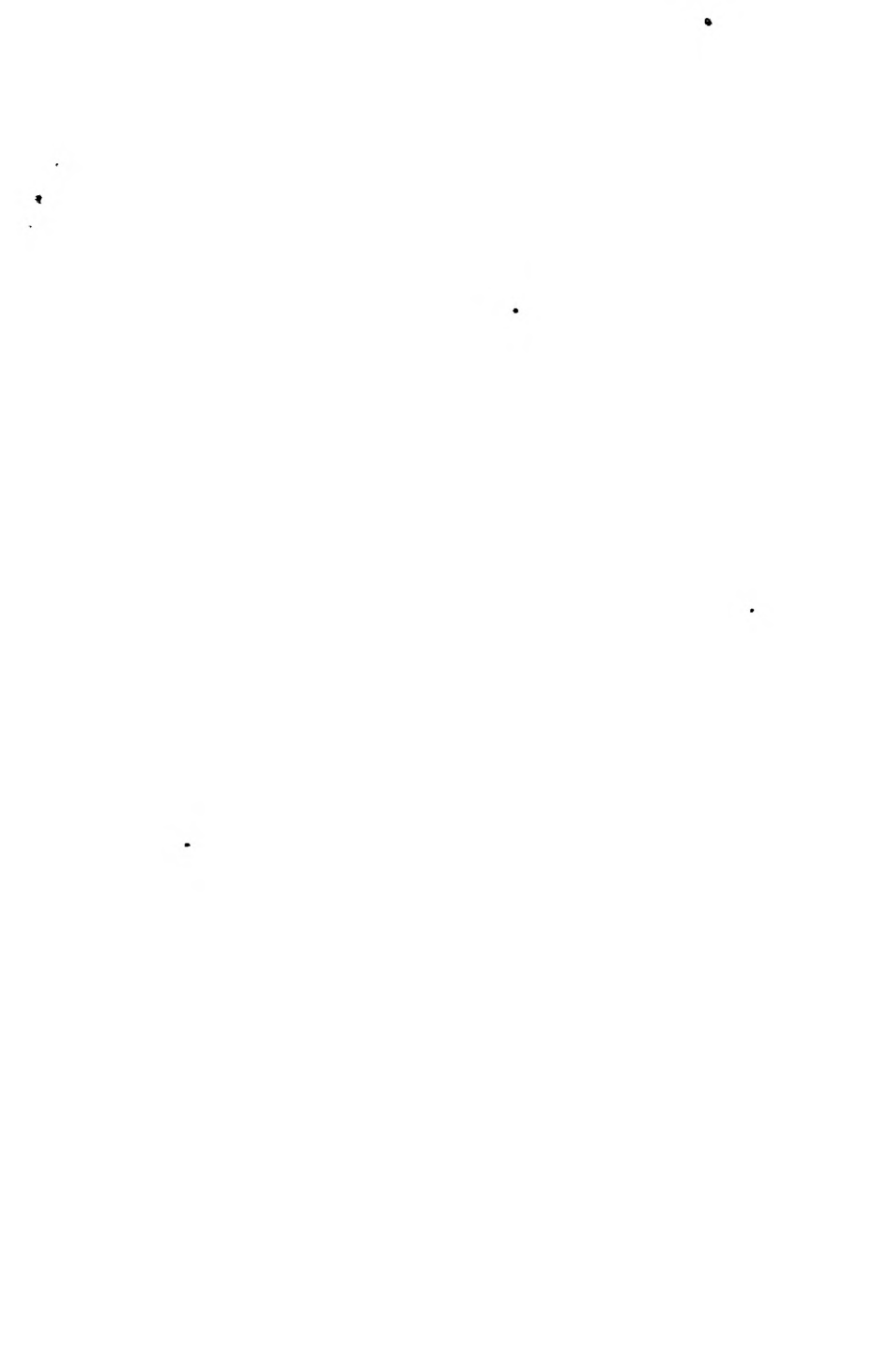
* The *sannasa* (if the translation filed in P. C., Chilaw, 15,482, be correct) stands condemned as not genuine by intrinsic evidence. It reads: "In the year of the holy Gantama Buddha 2060; in the year of the great King Saka 1135: in the 12th year of the lord Chakrawarti

first arrival of the Portuguese are interesting, though evidently legendary.

The President's questions were answered to a large extent by Mr. Arunachalam; though I do not think that fear of the Arabs (? Moors) was what deterred the Portuguese from visiting Ceylon between 1498 and 1506. Thereal reasons were : paucity of ships, the hostility of the Calicut Moors, and mainly the fact that sufficient cinnamon was obtainable at Cochin and Cananor by means of native vessels. There can be no doubt that sentiment played a large part in moving King Manuel to order his viceroy to "discover" Ceylon.

Wansai Nirabut Nawkabáhu [*sic* (?) Vira Bhuvaneka Báhu—B.], on Friday, the 7th of the increasing moon of the month Poson. It was granted, &c. Thus the *tudapat* and copper plates were granted by order of the powerful great King Prákramabáhu."

Buddha Varsha 2060, Poson, = A.D. 1516, June-July; Śaka Varsha 1435, Poson, = A.D. 1513, June-July, a difference of three years. According to the rock record at Kelaniya temple, Dharmma Parákrama Báhu IX. "ascended the throne of Laṅká" in B. V. 2051 = A.D. 1507-8. His predecessor was Vira Parákrama Báhu VIII.—B., *Hon. Sec.*



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The design of the Society is to institute and promote inquiries into the History, Religions, Languages, Literature, Arts, and Social Condition of the present and former inhabitants of the Island, with its Geology and Mineralogy, its Climate and Meteorology, its Botany and Zoology.

COLOMBO:
H. C. COTTLE, GOVERNMENT PRINTER, CEYLON.

1908.

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COUNCIL MEETING.

Colombo Museum, January 30, 1907.

Present :

The Hon. Mr. J. Ferguson, C.M.G., President, in the Chair.

Mr. P. Freudenberg, J.P., Vice-President.

Mr. R. G. Anthonisz.	|	Mr. C. M. Fernando, M.A.,
Mr. S. de Silva, Gate Muddaliyár.		LL.M.
Dr. W. H. de Silva, M.B., C.M., F.R.C.S.		Mr. A. M. Gunasekera, Muddaliyár.
		The Hon. Mr. S. C. Obeyesekere.

Mr. J. Harward, M.A., Honorary Secretary.

Business.

1. Read and confirmed Minutes of last Council Meeting held on November 20, 1906.

2. Resolved the election of following as Members :—

- | | | |
|---|---|-------------------------|
| (1) J. Parsons, B.Sc.: recommended by | { | (a) A. K. Coomáraswámy. |
| | | (b) G. A. Joseph. |
| (2) C. L. Joseph, Proctor, S.C.: recommended by | { | (a) G. A. Joseph. |
| | | (b) C. M. Fernando. |
| (3) Lieut. H. J. Jones, A.O.D.: recommended by | { | (a) J. Harward. |
| | | (b) G. A. Joseph. |

3. Laid on the table Circulars Nos. 312 and 324 containing two Papers by Mr. John Still, entitled "Notes on a find of Eldlings made in Anurádhapura," and "Roman Coins found in Ceylon," referred to Messrs. C. M. Fernando and P. E. Pieris for their opinions.

Resolved,—That the Papers be accepted for reading and publication.

4. Laid on the table Circular No. 351 of November 29, 1906, regarding the reprinting of the English translation of the "Mahá-wagya."

Resolved,—That the Secretary do write—

(1) To the Páli Text Society, requesting particulars regarding the scope of Prof. Geiger's work and probable date of its appearance, and informing the Society that the question of a new edition of the English translation is under consideration.

(2) To Government, notifying the above action, and adding that the Council recommend that the question of reprinting be deferred until a reply has been received from the Páli Text Society.

5. Laid on the table a Paper entitled "Some Early Copper Coins of Ceylon," by Mr. John Still.

Resolved,—That the Paper be referred to Messrs. C. M. Fernando and P. E. Pieris for their opinions.

6. Laid on the table a Paper by Mr. Donald Ferguson, entitled "John Gideon Loten, F.R.S., the Naturalist Governor of Ceylon (1752-57), and the Ceylonese Artist de Bevere."

Resolved,—That the Paper be referred to Messrs. R. G. Anthonisz and F. H. de Vos for their opinions.

7. Laid on the table a letter from the editor of the memorial volume to Dr. Friedrich von Spiegel soliciting contributions in the field of Irunian literature.

Resolved,—That the Secretary do reply that there seems no prospect of any Member being able to contribute a Paper on Irunian subjects.

8. Laid on the table and considered the Annual Report for 1906.

9. Considered date and business of Annual General Meeting.

10. Discussed the appointment of Office-Bearers for 1907.

Resolved,—That an expression of regret be conveyed to Mr. H. C. P. Bell at his proposed resignation of office as Editing Honorary Secretary, and that he be requested to reconsider his decision.

11. Laid on the table a letter from Lady Ashmore thanking the Society for the expression of sympathy on the death of Sir Alexander Ashmore.

Resolved,—That the letter be read at the next General Meeting.

12. Laid on the table an invitation from the Seventh International Zoological Congress.

Resolved,—That it be announced at the next General Meeting.

13. Laid on the table an advance copy of the Journal for 1906.

14. Resolved,—That a Council Meeting be held on Friday, February 8, 1907, at 5 P.M., to nominate Office-Bearers and discuss the question of employing a paid Secretary.

COUNCIL MEETING.

Colombo Museum, February 8, 1907.

Present :

The Hon. Mr. J. Ferguson, C.M.G., President, in the Chair.

Mr. P. Freudenberg, J.P., Vice-President.

Mr. R. G. Anthonisz.	|	Mr. A. M. Gunasekera, Muda-
Mr. C. Driberg, B.A., F.H.A.S.	|	liyár.
Mr. S. de Silva, Gate Mudaliyár.	|	Mr. C. M. Fernando, M.A.,
The Hon. Mr. S. C. Obeyesekere.	|	LL.M.

Mr. J. Harward, Honorary Secretary.

Business.

1. Read and confirmed Minutes of Council Meeting held on January 30, 1907.

2. Laid on the table a letter from Mr. H. C. P. Bell resigning the office of Honorary Secretary.

Resolved,—That the result of private correspondence between the President and Mr. Bell be awaited.

3. Laid on the table a Paper on “Nuwara-gala,” by Mr. F. Lewis.

Resolved,—That the Paper be referred to Mr. H. C. P. Bell and Mr. Simon de Silva, Mudaliyár, for their opinions.

4. Laid on the table a Paper entitled “Portuguese Ceylon at the beginning of the Seventeenth Century: a Sketch,” by Mr. P. E. Pieris, M.A., C.C.S.

Resolved,—That the Paper be referred to the Hon. Mr. J. P. Lewis and Mr. J. Harward for their opinions.

5. Discussed the question of employing a paid Secretary.

Resolved,—That a sum of Rs. 500 per annum be voted, to be paid monthly, beginning from January 1, 1907, as an honorarium to Mr. G. A. Joseph in recognition of his long and valuable services as Honorary Secretary and Honorary Treasurer.

6. Considered the election of Office-Bearers for 1907. Dr. J. C. Willis and Mr. E. B. Denham having been deemed to have retired by reason of least attendance, the vacancies were filled

by the nomination of the Hon. Mr. G. M. Fowler and the Hon. Mr. Justice A. Wood Renton. Dr. Coomáraswámy having resigned his place on the Council, Mr. P. E. Pieris was nominated.

Resolved,—That the following gentlemen be named as Office-Bearers for 1907 :—

President.—The Hon. Mr. John Ferguson, C.M.G.

Vice-Presidents.—The Hon. Mr. J. P. Lewis, M.A., C.C.S. ; Dr. A. Willey, M.A., D.Sc., F.R.S. ; Mr. P. Freudenberg, J.P.

Council.

Mr. C. M. Fernando, M.A., LL.M.	The Hon. Mr. P. Arunáchalam,
Mr. A. M. Gunasekera, Mudaliyár.	M.A., C.C.S.
Dr. A. J. Chalmers, F.R.C.S.	Mr. S. de Silva, Gate Mudaliyár.
Mr. C. Drieberg, B.A., F.H.A.S.	The Hon. Mr. G. M. Fowler,
Mr. R. G. Anthonisz.	C.M.G.
Dr. W. H. de Silva, M.B., C.M., F.R.C.S.	The Hon. Mr. Justice A. Wood Renton.
The Hon. Mr. S. C. Obeyesekere.	Mr. P. E. Pieris, M.A., C.C.S.

Honorary Treasurer.—Mr. G. A. Joseph.

Honorary Secretaries.—Mr. J. Harward and Mr. G. A. Joseph.

7. Laid on the table a Paper by Mr. H. W. Codrington, entitled "Notes on the Smith Caste in the Kandyan Provinces." Referred to Mr. H. C. P. Bell and Mr. Simon de Silva, Mudaliyár, for their opinions.

Resolved, that Mr. Codrington be thanked for offering the Paper, but he be informed that the Council regret not being able to accept it for the reasons specified.





